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ABSTRACT

To determine if rural secondary schools were a feasible source of agricultural manpower flow characteristics, 1,302 farmers from 27 southern Minnesota schools were identified on the basis of 1965-1967 school census data. Questionnaires were sent to a random sample of 279, which was divided into those becoming established, those leaving farming, and those not moving for 6 years. A descriptive analysis of the 23.6 percent return yielded these traits: (1) Those becoming established were the youngest group and had the highest level of educational attainment, (2) Those leaving farming operated considerably smaller farms and had greater reliance on government subsidies, hired help, and commitment to off-farm work, and (3) Those not moving for 6 years had the greatest net worth and least dependency on credit, and a higher proportion were farm owners. Future studies should: (1) concentrate only on those leaving agriculture or those entering, (2) determine size of the family in which husband or wife was reared and if there had been financial assistance from the family, and (3) obtain more quantitative measurements of participation with farmer's age and status. (SB)

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The Flow of Agricultural Manpower: Its Vocational and Educational Correlates

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SUMMARY

THE FLOW OF AGRICULTURAL MANPOWER: ITS VOCATIONAL AND EDUCATIONAL CORRELATES

The purpose of the investigation was to determine if rural secondary schools are a feasible source of information to study individual characteristics, educational attributes and motivational forces of agricultural manpower flow.

The utilization of community high schools as a base from which to identify agricultural manpower mobility between 1965 and 1968 was studied. School census data from twenty seven Southern Minnesota schools served as the source of the 1302 farmers from which observations could be made.

The investigators and a local resource person identified, from the school census, movement in and out of the district. The replacement or replacee farmer served as a counterpart whenever identifiable. A random sample of farmers were then identified from the census for comparison purposes.

Questionnaires were sent each family with 23.6% being returned. A descriptive analysis was run on various vocational and educational attributes as well as the motivational reasons for movement.

The farmer group becoming established were found to possess the following traits. They (1) were the youngest group, (2) were advancing more quickly toward ownership of a farm, (3) had increased in off-farm work of the husband and a wife, (4) were more actively interested in the newer farm organizations and in community service organizations, (5) had the highest level of educational attainment, (6) had the lowest participation rate in adult or young farmer classes and (7) showed the most concern for on-the-job training programs for adult.

Characteristics unique to the group leaving farming included, (1) operating considerably smaller farms at the time of departure, (2) having none classified as partners at departure time, (3) showing little specialization of farm enterprises, (4) possessing low abilities for entrepreneurship, (5) being less prone to change in farm status, (6) having a greater reliance on government subsidies, (7) having the heaviest reliance on hired help and commitment to off-farm work, (8) being more dependent on credit in operating the farm business even though they had the lowest level of liabilities, (9) desiring relocation again or being undecided as to another change, (10) having the lowest educational attainment, (11) having the lowest proportion of husbands and wives possessing post-high school training, (12) having the greatest concern for college training for their children and (13) having the least concern for vocational training programs in the high schools.

The personal and vocational traits unique to the farmer not moving in six years included: (1) a higher proportion of farm owners, (2) the least hired labor utilization and off-farm employment, (3) the greatest net worth and least dependency on credit, (4) the greatest participation in rural farm organizations, politics and church board, (5) the most adult farmer/young farmer class participation, (6) the opinion of overemphasis of high school athletics, and (7) more concern for on-the-job training for high school students.

Most of the outgoing farmers were seeking greater financial security in the form of lowering their financial burdens because less risks were anticipated in their new venture. The opportunity of farming for himself was by far the most frequent response of both the farmer who was becoming established and the stable farmer, prior to his last move.

Some characteristics of the establishing group of farmers were analogous to the stable farmer. Incoming farmers follow a similar pattern of specialization and advance more rapidly towards establishment in farming as an owner or owner-rentor. They showed greater interest in the various farm organizations and in community activities. They have collectively had a greater amount of post-high school training and show more concern for vocational training in high schools.

The study identified that the community school can serve as a satisfactory base from which manpower mobility can be identified. With minor adaptations mobility of the masses could be similarly identified. The rural area needs to accommodate better mobility because the urban areas cannot and should not need to accommodate the moving masses.

CHAPTER I

INTRODUCTION

Many ghetto problems in the larger urban metropolises are essentially a part of a larger problem of the flow of manpower and the capacity of the urban community to accommodate the moving masses.

The capacity of the rural area to accommodate its flow of manpower is very similar but does not generate the attention given to urban communities. This is evidenced when one considers that (1) model cities are being pursued vigorously for the purpose of alleviating problems encountered with the increased flow of urban manpower while the rural manpower flow goes on unattended, and (2) poverty is proportionately more prevalent in rural areas than in urban areas but proportionate means of deterring such poverty are not in the forefront of the public awareness or interest.

Older farmers tend to finish out their years on farms inadequate in size to support a younger farmer trying to become established. In addition, low grade types of farmers with little real ambition to improve their living, the counterpart of the slum dwelling in cities, retard the organizational resources where smaller number of entrepreneurs are making as good returns as their nearest counterparts, the independent store shopkeepers and small businessmen in adjacent cities.

Many farmers are confronted with the choice of remaining in agriculture at low incomes or finding employment outside of agriculture. Some are willing to accept a low farm income because of a preference for staying on the land. Some stay because of advanced age or the necessary training needed for non-farm employment. Undoubtedly there are many who wish to find more remunerative employment.

Farming is presently in the course of its third great revolution. The first came early in the 19th Century when animal power began to replace human energy. The substitution of mechanical power for animal power in the 1920's initiated the second. The third and present one is seen in the strengthening of agricultural production and marketing with vast amounts of the products of science, technology and business management.

Agriculture is not a rewarding occupation for the weak, the ignorant or the indifferent in the present era of technological evolution. The fact that farms are continuously becoming more complex, more efficient and larger would seem to be a strong indication that managerial capabilities must also increase.

The shrewd farm manager will select commodities and services which will increase his income or increase the satisfaction in being a farm operator. Properly chosen, these increments of technology can help a farmer maintain his relative position in the more complex agriculture of the decade ahead.

In an era of rapid technical and managerial change, increased levels of educational attainment are a prerequisite to minimum managerial proficiency. Adjustment to the accelerating rate of change is, therefore, a major problem of our total society.

Opportunities and problems resulting from the unprecedented growth rate of science and technology will significantly influence the destiny and character of present and future plans and programs of most educational, industrial and governmental organizations. How to accommodate the presently accelerating rate of change is, therefore, a major concern of and challenge to our society.

Education will continually be required to respond with adequate and appropriate curricula for the preparation for employment. High school agriculture programs will need to become better geared for prospective entrepreneurship, the off-farm agricultural occupations and collegiate preparation.

High school agriculture programs may undergo changes similar to those in agricultural colleges. Colleges of agriculture were originally designed to meet the educational needs of young men and women who wanted to live on farms and to engage in agricultural production. It was soon learned that the large numbers of these college-trained individuals never returned to the farm. With this realization came the departmentalizing of the agricultural curricula which led to specialized training.

Modern farming is much broader than the narrow dictionary definition, "the art or science of cultivating the soil." It is an essential link in the chain of feeding and clothing people. Rural young men preparing for farming need to have a thorough knowledge of soils, plants, and animals. They must understand the need for proper operation and maintenance of farm machinery as well as being familiar with the intricacies of farm economics and farm finance. It is nearly impossible, presently, to attend an agricultural college and to receive specialized instruction for the explicit purpose of training for farm entrepreneurship or to become a farm manager.

Adult education is likely to include better approaches to vocational retraining in addition to the usual general education enrichment programs and activities designed for the productive use of leisure time. Schools in rural communities, especially, are likely to become more cognizant of the problems encountered by farmers during the period of evolutionary change and they may be prompted to develop new programs or expand existing programs for the improvement of skills.

Projections of the supply of agricultural manpower reveal that only 3.6 percent of the total United States population will be classified as farm managers, laborers and farm workers by 1975, in contrast to the 1960 figure of 6.5 percent. This employment decline will be absolute as well as relative. In 1958, for example, there were 167,000 farms in Minnesota and by 1975 the number will be reduced to 117,900. Meanwhile the average size of farms will increase from 195 to 260 acres. These figures not only identify the increased managerial capabilities which will be required by those engaged in farming but also the problem of relocation of nearly 50,000 farm families.

Perhaps too much attention has been paid to mere numbers leaving agriculture; perhaps more attention should be paid to the educational and vocational attributes of these people. Equally important are the factors that motivate one family to leave a farm and another family to replace them. It is becoming increasingly evident that these problems deserve examination within the context of changing economic and social modes.

The flow of agricultural manpower characteristics are not easily seen. It has been extremely difficult to examine or deduce anything about the flow charactertistics. Most current literature on agricultural manpower deals with the problems associated with the supply and demand of manpower. It is more difficult to determine whether the flow characteristics of agricultural manpower are features that evolve in any direct way from the characteristics of supply and demand associated with such problems as heavy capital requirement or limited education.

Frequently the uninformed or misinformed farmer does not migrate from the farm as a result of his lack of agricultural knowledge. Men do not withdraw from farming, even under considerable provocation. They simply refuse to enter it when prospects are not good. This is indicative that the educational salvage value is low for a farmer whose education is minimal and whose experience and dedication are toward agriculture. Having made his choice, he is reluctant or unable to leave farming, even in the face of low returns.

A second facet is the extreme difficulty of defining agricultural manpower. The typical European system includes only those individuals engaged in the production of agricultural products and those activities related directly to production. In the United States there is a broader definition which generally includes the agriculturally related occupations. Neither the Department of Labor nor the Bureau of the Census has found a convenient way to inventory or to categorize or even to acknowledge this broader range of agricultural manpower.

A third facet is the dilemma one faces in trying to establish an adequate sampling frame from which to look at agricultural manpower. Any frame chosen has a "built-in" definition of agricultural manpower. If Agricultural Conservation Service records are used, only its participants are included. Similar limitations are found when records of Farm Management Service or Registrar of Deeds are used as sampling frames. Part of the problem, therefore, is the appropriate sampling of the population. This study also has limitations built into the sampling scheme. The definitional restriction will be reduced with the mere assumption that, because the United States has a high proportion of children enrolled in public schools, schools will be a reasonable basis for a sampling frame.

A specific problem under study is to see if it can be demonstrated that the school and its migrating enrollment constitutes a suitable mechanism from which the flow of agricultural manpower can be examined, and to see if it can be a suitable sampling framework from which the possibilities of educational attributes and their influences on agricultural manpower can be examined.

The educational opportunities for farmers, under present circumstances, are vastly different from most other vocations. One might say that it is hardly possible for farmers to exceed more than 12 years of formal education. As the general school leaving age increases, this ceiling remains for most farmers. This is different than for business, sales and other occupations. Formal, post-high school education may be available for others, but not so for farmers.

Education for most vocations is designed to meet a two-fold purpose; opportunity for income and opportunity for status. Agriculture can basically utilize only one of these, that of opportunity for income.

As a means of upgrading personnel, many industries are encouraging their employees to enroll in evening classes and often expenses are reimbursed. Support of a program for higher education has been found to pay benefits to the employer as well as the employee. Labor commitments do not ordinarily allow farmers this opportunity. Even the types of farming which put seasonal demands on labor do not have institutions of higher learning readily accessible to the farmer. More often such schools are located in industrial communities.

The passage of minimum withdrawal age laws by state legislatures has brought with it a trend of increased educational attainment in our population. A certain amount of this educational attainment is attributable to replacements generally having more education than retiring workers, automatically increasing the average education level. This process should cause the average educational level of farmers to increase at a more rapid rate than other areas of employment, as the number of farmers decreases through retirement or out-migration.

The problem is now compounded. Little is known about educational trends of farmers, other than the fact that education attainment for farmers increased by 0.4 years from 1952 to 1962, which was considerably lower than the increase of 1.4 years for service workers, 1.1 years for craftsmen, 1.0 years for operatives and 1.6 years for common labor.

How does one account for this extremely low rate of increase? At least partially this can be credited to the fact that the median age of farmers in the United States is increasing. Men fully committed to farming leave it reluctantly and slowly, and young men are less able to enter farming as entrance requirements, especially capital, rise sharply. Normal aging processes will greatly reduce the numbers of farmers in another generation, but for the next two decades the proportion of older farmers will also rise considerably. This is a reflection in part of the number of farmers, who in the 1930's for lack of non-farm employment, remained in agriculture.

The migration of farmers is a dual educational problem. The kind of training needed by people who leave agriculture (the out-migrant) differs greatly from that best suited to those who advance in or enter into farming (the in-migrant). This is an old point, yet relatively little has been done to change the agriculture-directed nature of rural vocational and other schooling.

The United States Census data lists out-migration only in numbers. A farmer is identified as to the county in which he lives and whether this differs from when the previous Census was taken. To illustrate the inconsistency of such a procedure; a person living in St. Louis County in Minnesota could move 130 miles and remain within the county, whereas another person could move the same distance from Upper New York State to Maine, spanning both Vermont and New Hampshire. Only the latter would be considered a migrant in the Census.

The Census contains no data as to the characteristics of people who migrate. The information about migrants is merely included in the total county data. Little is known about the educational attributes of farmers in relation to other personal attributes, his farming operation and his stability in the occupation.

Can the school be an appropriate source from which to study flow patterns? The flow of agricultural manpower toward institutions of higher learning is difficult to observe, except for the number of high school graduates. Often it takes years before a person becomes occupationally established in farming. Conversely, school census and attendance data will not identify the retiring farmer, even though retirement from farming, per se, may start before age 65.

Educational census data will, however, identify the flow pattern of the farmer or farm worker and when his migration is most likely to occur. It is more probable that a farmer will enter into or entirely abandon farming during the years when his children are in school than at any other time.

This study now has a basis of determining whether an educational institution can become a leverage point from which to study aspects of educational structure and manpower flow. The need for more educational inquiry with respect to the foregoing problems is worthy of more consideration. If identifiable manpower flow patterns can be determined, educators may be guided in assisting farmers meet their vocational objectives and their search for financial security.

Specifically, this study would identify the in-migrant farmer and the out-migrant farmer to:

1. Determine the individual characteristics of the manpower flow including:

    A. the personal attributes, i.e., record of previous achievement, nature of realtionship to business, assets, etc;
    B. whether the change is immediate or ultimate;
    C. identify general characteristics of the flow of masses.

2. Examine the educational attributes of the migrants including:
    A. the educational level of attainment;
    B. the felt need for Vocational Training at high school and post-high school levels;
    C. the desirability of establishing re-training programs in vocational-technical schools, colleges or universities.
3. Identify the motivational forces which influence farmers' desires to enter into or depart from farming to:
    A. identify the stimuli to which moving is the response;
    B. alleviate problems and misconceptions of other farmers contemplating similar changes and to enhance their adjustments.

Related Literature

An extensive review revealed a complete lack of objective literature which dealt with the relationship between education and agricultural in-migration or out-migration. Agriculture migration studies, most of which pertain to the South or Southwestern United States, invariably center around the migratory worker and not the migrating farmer.

Migration from farms has assisted industrial expansion. During the 35 years from 1920-1955 the net migration from farms amounted to 24 million persons. More recent findings indicate an average of nearly one million people have left agriculture each year since 1960. If these millions had not left, our agriculture today would have many similarities to that of densely settled agrarian areas in other parts of the world. In addition, it would also have slowed down the application of agricultural technologies.

Bowles and Tarver found ranges in migration ranging from a net in-migration of 397,000 in California to an out-migration of 76,000 in Mississippi in the last decade. Minnesota had an out-migration of 14,000 during this same period. This same study revealed that all groups of counties with less than 50 percent of their population located in urban localities had population losses in nearly every sex and age group. The Central Region, of which Minnesota is a part, is recognized as being second only to the South in over-all population losses.

Calvin Orr found that poverty was the main reason for migration in the Southwestern states and that an educational program was then specifically necessary for adequate readjustment of the migratory worker. Whether this situation exists with the migratory farmer is not identified, but one might surmise the same to be true to some degree for the out-migrant.

A retraining program for out-migrants similar to what Brooks determined to be effective might enhance the movement of the out-migrant. Borus concluded that retraining programs through the Area Redevelopment Act and state sponsorship was economically feasible for the government and the economy.

There is evidence that adequate accounting and business analysis procedures often provide farmers with information about their operations that enables them to allocate their resources more profitably. Both the Cvancara Study and the Persons-Swanson Studies resulted in such findings.

No study has shown the correlation between education, farm record analysis or retraining programs and the migration of farmers. If such information could be developed, it is altogether possible it would be beneficial to both the in-migrant and the out-migrant. The in-migrant could be better prepared in the techniques of record analysis and through an educational enrichment program have a broader perspective of production agriculture and social preparedness when migrating into a community. The out-migrant might realize that his managerial capabilities are not sufficient for the financial reward he is anticipating from farming. More effective movement either way would be achieved.

This review of literature has given few insights into the problem of manpower flow. Although the net flow has been from the farm, very little has been done to identify the characteristics of the flow. Characteristics of farmers in general and programs beneficial to the occupation have been citied; however, their relevance to the overall flow of agricultural manpower is an unknown quantity.

This study will not determine the direct relationship of the various human and physical resources of farmers nor will it have sufficient detail to determine cause-effect relationships. Rather it is intended to be a pilot program designed to test the feasibility of using community school records as a means of identifying agricultural manpower mobility and to categorize whenever possible educational, personal and vocational characteristics of this mobility.

CHAPTER II

PLAN AND PROCEDURE

Twenty-five to thirty-five small rural communities with a degree of uniformity were considered sufficient for the study.

Population and Sampling Procedure

The locale of farmer movement included in the study was of prime consideration. Due to the diversification of farming in Minnesota, it was more feasible to restrict the study to an area in which the farming enterprises were somewhat concentrated. Southern Minnesota was selected as the starting base due to the higher degree of intensified farming prevalent in that part of the state.

Information was collected from several federal and state agricultural agencies which identified the area being considered for the study. Length of growing season, amount of rainfall, agronomic districts and zones for the various fruits, vegetables and crops grown, county trends on crops, livestock, labor and population in addition to the identified regions utilized in University of Minnesota Agricultural economic studies were all taken into consideration. The southern most twenty-eight counties were selected to be the population for the study in Minnesota. This group of counties came closest to being common in most of the criteria previously mentioned.

The desirability of this area for the pilot program was acceptable to the Department of Agricultural Education at the Unitersity of Minnesota and the State Supervisor of Agricultural Education for Minnesota, both of which were to play an important part in this study.

It was decided to use the 1967-68 Minnesota Education Directory as the basis for school selection. Class size of 150 students or less was agreed by the parties involved to be indicative of the rural communities which should constitute the population for this pilot program.

Three-hundred-nineteen schools were identified with a secondary enrollment of 600 students or less. One hundred nineteen were located in the twenty-eight counties under consideration. With the aid of a random number table these schools were given a rank of priority. A letter was sent to the superintendent of the first 50 randomly selected schools asking their cooperation. (See Appendix A.) Additional letters were to be sent, according to the priority list, until a minimum of twenty-five superintendents indicated a desire to participate. Twenty-seven affirmative replies were received as a result of the first mailing which was considered sufficient for purposes of the study. The farily even distribution of schools included in the study is readily noticeable when plotted on a Minnesota map.

The investigators visited each of the schools indicating a desire to participate in this study, to determine the type of school record most feasible for identifying the farmers to be included in the sample. Two types of school records were potential sources of movement information. One type, attendance records, identified students moving in or out of the school district during the school year. These records would have required supplementation of the principals' records of students' having scholastic records forwarded to another school during the summer months. This procedure identified the movement in and out of the school district of those families with school age children. It would have been difficult, however, to select the group of farmers to be used for comparison purposes on a random basis. The parents with more than one school age child would have been identified with each child listed on the attendance records.

The other type of school record which could be utilized was the school census. This identified families with children from birth to age twenty-one. By comparing census for successive years it was possible to identify movement in or out of the school district. In addition, the random selection of the farmers which were to comprise a comparison group was more easily facilitated due to the individual listing of farm families.

The decision was made to use school census data at all schools because it was more inclusive of the movement in the school district and identified more readily the group of farmers which were to comprise the group of farmers not moving in several years.

In order to insure that current information would be reported only the 1965, 1966 and 1967 school census data were utilized in the study. Whenever possible, the investigators employed the services of the vocational agriculture instructor, principal, school secretary or someone else familiar with the rural farm population to assist in the identification process and supplement the information found in the various census forms.

When a farmer's name disappeard from the census, he was identified as a participant in the study. His current address and whether or not he was engaged in farming was then determined when possible. It was at this point that the local resource person identified the replacement because the replacement farmer would oftentimes not appear on the census due to having no children under age twenty-one at home.

If a family had moved on to the farm and was maintaining a similar type of operation, the replacement constituted another participant. If, however, the farm became an expansion unit for another farmer, the replacement was not included as a participant.

Much of the same procedure was followed when a farmer's name appeared on the census for the first time. This farmer became a participant and when possible, the farmer he replaced was also identified as a participant.

Because this procedure identified some farmers without children under age twenty-one, the study developed a broader sampling base from which to identify farmer movement.

After identifying farmer movement, the remaining farmers' names on the census were numbered consecutively. For every farmer moving into or out from the school district, with or without identifying the replacee or replacement, a farmer who had not moved within the last six years was identified by use of random number tables.

One-thousand-three-hundred-two farmers were identified by the process previously mentioned at the twenty-seven schools visited by the investigators. Of the 412 farmers who had moved to a different farm, the farmer moving from the place was identified in only 185 cases. It should be pointed out that due to the sampling process, some farmers who relocated within the school district were included in the study and that the 412 farmers were not necessarily migrants into the school district.

Similarly, the 376 farmers leaving the occupation included some who remained within the school district but either retired or accepted non-farm employment. One-hundred-eighty farm replacement families were identified by the resource people.

The remaining 514 farmers constitute the group which had not moved in the last six years.

Several farmers identified in the study as leaving the farm relocated on another farm. Considering that the attributes of the farmers involved in the rural movement was of prime concern to the study, those relocating were later grouped together with those entering farming and those moving into the school district.

Three groups were thereby formed from the 1302 farmers identified at the respective schools; those who entered farming or relocated on another farm; those who left farming, and those who had not moved for several years. Through this grouping process it was possible to determine whether or not there were specific traits or attributes which identified farmer movement when compared to farmers who tended to become a tenured resident.

Five-hundred-eighteen farmers were identified as either entering farming or relocating on a different farm, two-hundred-fifty as those leaving farming, and five-hundred-fourteen comprised the group not moving. Twenty farmers moved from school districts for which addresses were known but their present status was unknown.

The number of farmer participants identified per school ranged from a low of twenty-two to a high of ninety-nine. (See Appendix B.) The schools at which the fewest farmers were identified generally had either no individual available for consultation with the investigators or had personnel assisting who had little knowledge of the rural population.

Collection of the Data

Three questionnaire forms were developed which included as many common items as possible. One form was for those farmers either entering farming or relocating their farm business. (See Appendix C.) Another form was for those who left farming. (See Appendix D.) The third was for the farmer in the group who had not moved in several years. (See Appendix E.)

An appropriate letter, questionnaire and self-addressed, stamped envelope were mailed to those identified by each school. Both of the first two questionnaire forms were sent to the twenty farmers for which their present status was unknown.

Forty-two unanswered questionnaires were returned for lack of sufficient address or from farmers or their widows who should not have been included in the study due to incorrect information being obtained from the school records or school personnel.

Two-hundred-ninety-six completed questionnaires were returned; a return of 23.6%. (See Appendix F.) One-hundred-twenty-one returns were received from the farmers which were sent the questionnaire developed for relocating or entering farming, forty-eight from those who left farming and one-hundred-twenty-seven from farmers not moving in six years. Respectively, this was a return of 23.4%, 19.0% and 24.9%.

Ten questionnaires were returned from farmers for which their replacement had also returned his completed questionnaire. Whereas, the original plans included a separate analysis of matched pairs, it was decided that the low number of returns would not be characteristic of the population and did not warrant such an analysis.

Analysis of the Data

The returned data was closely examined for gross inconsistencies and omissions. A coding system was developed coordinating the information from the three questionnaire forms in such a way that comparisons could be made upon receipt of the print-out sheets from the computer. (See Appendix G.) The data was then transferred to the coding form for key punching. The resource people at the University of Minnesota Numerical Analysis Center were helpful in developing the necessary procedures for obtaining print-out material from which the distributions and means could be obtained.

CHAPTER III

FINDINGS OF THE STUDY

The data on the returned questionnaires was transferred to computer cards so a feasible descriptive analysis could be developed. Seventeen returns had inadequate information and were not included in the analysis which left 279 in total--113 who either entered farming or had a change of status in the last three years, 47 who left farming and 119 farmers who had not moved in the last six years. For purposes of this analysis, the following terms will be used in identifying the three groups of farmers who are included in the study.

Incoming group:	Those who were becoming established in farming by entering the occupation for the first time, relocating on another farm or changing their status in farming.
Outgoing group:	Those who retired from farming or who for some other reason left the occupation of farming.
Stable group:	Those who had not moved in the last six years.

Some data was missing on several questionnaires. In the same respect, some of the farmers reporting did not complete the information for the spouse. It is not known whether the farmer was not married, was a divorcee, a widower or just elected to not report any information on his wife. For purposes of this analysis, however, the farm, with or without missing data, was considered as an entity in itself, whenever the situation allowed.

The descriptive analysis was considered under three areas: (1) personal and vocational attributes of the farmers, (2) educational attributes and (3) motivations which influenced farmers' decision to move.

Personal and Vocational Attributes

The average age of the total group of farmers was 41.6 years. As one would expect, the incoming farmers were considerably younger than their counterparts who left farming; namely 34.5 years and 50.1 years, respectively. The stable group of farmers averaged 45.1 years.

These differences in ages were not too surprising when one considers that the younger group were in the process of becoming established in farming, whereas those leaving for various reasons had been engaged in farming for several years with some reaching the age of retirement.

When the farmers were asked for their nationalities, the replies ranged from a mixture of five to none. The four most common replies were German, American, Norwegian and Irish. The two most common combinations were German-Irish and German-Norwegian.

Two-hundred-fifty-one farmers were identified as being raised on farms and only nineteen in the city, a ratio of 13.2 to 1. Interesting, however, was the very slight difference in the size of farm on which they were raised. Whereas, the average for the total group was 220.4 acres, the incoming group of farmers averaged 223.8 acres, the outgoing group averaged 216.3 acres and the stable group averaged 218.8 acres.

A very close similarity is identifiable when checking the distribution of home farm size in Table I. Although this table does not show much variation between groups, it will serve as a basis of comparison later when contrasting the present and previous farm sizes. We will only note at this point that all but two to three percent of the farms were larger than 400 acres and that about 45 percent of the farms were 200 acres or less.

TABLE I

CUMULATIVE PROPORTION OF FARMER'S SIZE OF HOME FARM BY GROUPS

Acres	Cumulative Proportion Incoming Farmers	 Outgoing Farmers	 Stable Farmers
400 or less	.98	.97	.97
300 or less	.74	.85	.79
200 or less	.54	.54	.59
100 or less	.07	.10	.10

Most farmers either were farming the place on which they were raised or were within a relatively short distance of the home farm considering that their present operation averaged 32.5 miles of their home farm. The stable farmers were closest to their home place, averaging 23.5 miles. The incoming group averaged 34.1 miles and the outgoing group 54.6 miles from their home farm. The thirty-three (33) responding farmers who were not presently engaged in farming were,therefore, 20 and 30 miles farther from their home farm than their incoming counterparts or the stable farmers, respectively. Although this mileage is not a great distance, it gives the implication that when farmers leave farming they do not establish themselves in the immediate area in which they were raised.

Although dairying was the most prevalent livestock enterprise on the farm, a great majority of the farmers were raised on a general farm; one which did not specialize in any class of livestock or crop. (See Table II.) The distribution of farm types for the individual groups was quite consistent with that of the total group.

The average age of the farmer's wife followed the same pattern as that previously described for the farmer. The only difference was that they averaged a younger age in each group.

TABLE II

FARMER'S TYPE OF HOME FARM BY GROUPS

Farm Classification	Number Reporting Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Beef	7	2	1	4
Dairy	23	14	2	7
General	194	69	37	88
Grain	7	5	0	2
Hog	1	1	0	0
Beef-Hog	7	4	3	0
Dairy-Hog	16	6	0	10
Total	225	101	43	111

The ethnic background of the wives did not vary much from that of their spouses. Just as German and American were the two most frequently listed nationalities for farmers, so was it the same for their wives. The distribution for the other listed nationalities of the wives follows very closely the pattern established for their spouses.

Considerably more wives (66) were raised in the city than were the husbands (19). Three times as many wives were raised on farms than in the city, however.

There was much more variation in the size of home farm for the wives than for the farmers. Whereas, the largest home farm for the farmers was 960 acres, one of the wives was raised on a 10,000 acre farm which increased the average size of home farm for the wives by 50 acres. The total group of wives averaged a home farm size of 249.1 acres compared to averages of 315.9 acres for the wives in the incoming group, 183.7 for the outgoing group and 212.7 for the stable farmers' wives.

The distance which the wife had moved from her childhood was inadvertently omitted from the questionnaire sent to the families leaving farming, but the figures for the incoming group was 187.4 miles compared to only 34.1 miles for their husbands. Much of this apparent difference can be credited to wives who came from foreign countries. Wives of the stable group of farmers had moved 36.7 miles compared to 23.5 miles for their husbands.

Wives, too, indicated that most were raised on an unspecialized type of farm. (See Table III.) The distribution between the groups throughout the farm classifications is similar to that of the husbands, indicating that farmers tend to marry girls with backgrounds similar to theirs.

TABLE III

WIFE'S TYPE OF HOME FARM BY GROUPS

Farm Classification	Total Group	Number Reporting Incoming Farmers	Outgoing Farmers	Stable Farmers
Beef	6	3	1	2
Dairy	27	13	4	10
General	135	45	24	66
Grain	9	7	0	2
Hog	2	1	0	1
Poultry	1	1	0	0
Beef-Hog	3	2	1	0
Dairy-Hog	11	7	0	4
Total	194	79	30	85

Family size and the childrens' ages were determined to identify whether they had a bearing on farm stability. The farmers as a group averaged 3.55 children, 2.73 of which are living at home. The family of the incoming farmers averaged 3.06 children which was 0.9 children less than either the outgoing farmers or the stable farmers. In the same respect, the incoming farmers had children averaging a younger age than the other two groups.

The outgoing farmers had fewer children living at home, which can be accounted for in part by the older average age of this group of farmers. There was nothing to indicate that those actively engaged in farming had significantly more sons still living with them than did those who had left farming. Similarly, the ages of the children did not appear to affect stability in farming.

These findings indicate that farmers are not dependent upon family labor as was the case in years gone by.

The farmers still actively engaged in farming were asked to identify the existing situation. Because those leaving farming had done so within the last three years, their situation at the time of departure was compared with the present situation of the farmers in the other two groups.

Both the outgoing and stable groups had lived a longer period of time on the present farm than had the incoming group of farmers. The nature of the study and the type of questionnaire would, however, yield that type of a response.

An indication that farms are getting larger was substantiated when home farm, previous farm and present farm operations were compared. Whereas, the previous farm operation for the total group was not too much larger than the farm on which the operator was raised, a more than substantial increase was made upon movement to the present farm, especially for the farmers in the stable group. (See Table IV.)

TABLE IV

COMPARISON ON FARM SIZE OF FARMER'S HOME FARM, PREVIOUS FARM AND PRESENT FARM, IN TOTAL ACRES

Farm Locale	Average Size of Farm Incoming Farmer	 Outgoing Farmer	 Stable Farmer
Home Farm	223.8 acres	216.3 acres	218.8 acres
Previous Farm	279.6 "	248.8 "	224.1 "
Present Farm	335.9 "		344.8 "

An aspect of interest is that those who left farming were operating only 248.8 acres at the time of departure compared to the present operation of 335.9 acres for the incoming group and 334.8 acres for the stable group. The tillable acres for these same groups are similar in comparison, being 205.7 acres, 282.3 acres and 293.9 acres, respectively. These figures indicate that inadequate size may have been one of the factors for leaving the farm.

It has been mentioned that farm size has increased considerably. We noted earlier that home farm size of 400 acres included 97 to 98 percent of the farms in all three groups of farmers. (Table I, p. 15). Table V illustrates that farm size must be increased to 600 acres in order to include the same proportion of those who moved from the farm. The present farm acerage must increase to 800 acres for the stable farmer and to 900 acres for the incoming farmer to include the same proportion of farmers in these two groups.

TABLE V

CUMULATIVE FREQUENCY OF TOTAL ACRES OPERATED ON PRESENT AND PREVIOUS FARMS, BY GROUPS

Acres	Present Farm Incoming Farmer	 Outgoing Farmer	 Stable Farmer	Previous Farm Incoming Farmer	 Stable Farmer
1,000 or less	.98	1.00	.97	1.00	1.00
900 or less	.97	1.00	.97	.98	1.00
800 or less	.95	1.00	.97	.98	1.00
700 or less	.94	1.00	.95	.98	1.00
600 or less	.92	.96	.90	.95	1.00
500 or less	.86	.93	.87	.95	.98
400 or less	.76	.91	.77	.92	.93
300 or less	.53	.74	.46	.63	.77
200 or less	.31	.43	.27	.37	.57
100 or less	.05	.02	.02	.02	.07

It was also indicated earlier that about 55 percent of the farms were 200 acres or less. Present farm distribution showed that this same size farm included only 27 percent of the stable farmers, 31 percent of incoming farmers and 43 percent of outgoing farmers.

One last aspect of this table is worthy of discussion. Although there are proportionately more of the incoming farmers than stable farmers in the categories up to and including 300 acres or less, the rate of increase decreases to become very comparable at each of the successively larger categories.

The possibility of a complacency attribute prior to movement from the farm is identified when attention is directed toward the duration of the farm prior to the most recent moves. Whereas the incoming farmer resided an average of 111.6 months on his previous farm, and the stable farmer 106.4 months, the farmer leaving the business resided 257.2 months on his farm prior to his move, which is more than twice that of the other two groups. Once again, his underlying motivations, a topic for later discussion, might explain this situation.

The farmer's status was compared for purposes of identifying tenure situations. The farmer could check one of six options; owner, owner-renter, renter, partner, hired man and farm manager. Proportionately, the stable farmer included far more owners and part owners than did the other categories. (See Table VI.) This, however, was expected when one considers that these farmers had not moved in several years, indicative of individuals who are established.

TABLE VI

FARMER'S STATUS ON PRESENT AND PREVIOUS FARMS, BY GROUPS

Farmer Classification	Incoming Farmers		Outgoing Farmers	Stable Farmers	
	Present Farm	Previous Farm		Present Farm	Previous Farm
Owner	35	8	24	60	4
Owner-Renter	23	3	7	33	3
Renter	43	40	16	20	29
Partner	9	8		6	2
Hired Man	2	7			4
Farm Manager	1				
Total	113	66	47	119	42

Both the stable group and the incoming group showed trends that farmers move from a rental status into either the renter-owner or owner status. Several farmers did not indicate their status on their previous farm, however, a very similar distribution between the two groups is evidenced by those who did identify such status.

The investigators note with interest that slightly over half of the outgoing farmers were owners and about 15 percent more were part owners. This distribution is considerably higher than was anticipated for farmers leaving the business.

We turn next to the type of present farm operation. The farming found in the 28 county area included in this study was quite variant. (See Table VII.) Rather than relying on specific enterprises for their major source of income, about one-half of the farmers considered themselves general farmers.

TABLE VII

TYPE OF FARM PRESENTLY AND PREVIOUSLY OPERATED, BY GROUPS

Farm Type	Number reporting Incoming Farmers Present Farm	Incoming Farmers Previous Farm	Outgoing Farmers	Stable Farmers Present Farm	Stable Farmers Previous Farm
Beef	5	4	0	8	1
Dairy	13	9	2	15	3
General	54	37	38	58	30
Grain	8	2	1	11	1
Hog	10	1	1	6	1
Poultry	0	0	0	0	1
Sheep	1	0	0	1	0
Beef-Hog	9	2	2	13	0
Dairy-Hog	11	5	3	6	4
Total	111	60	47	118	41

Although farmers had more options from which to choose, they chose to classify themselves in the manner shown. Most of the income was derived from livestock enterprises, as only 19 farmers currently classified themselves as grain farmers.

Compared to the other farmers, relatively few of those leaving the farm were specializing in livestock as far as self-classification was concerned. Whereas 81 percent of those leaving farming classed themselves as general farmers only 49 percent of the actively engaged farmers did so. Proportionately the move from the previous to the present farm for the latter group was toward greater specialization, with the incoming group decreasing from 62 to 49 percent as general farmers and the stable group from 73 to 49 percent. Farmers increased in specialization in all areas with the exception of the one stable farmer who had previously classified himself as a poultry farmer. Although there were not many who considered themselves as grain farmers, there was a significant increase from three to nineteen.

The distance which a farmer moved was next determined. The incoming farmers averaged moving 52.3 miles from their previous farm. The outgoing farmers moved an average of 120.4 miles to their present location and the stable group moved 20.7 miles to their present farm. It appears that few who left farming moved to their local community or to the neighboring town, due to the average in miles moved. In much the same respect, it appears that the younger men becoming established in farming were considerably more mobile than were the stable farmers who located themselves some years earlier.

A closer look at the distribution of movement for each group indicates that two incoming farmers moved about 1,000 miles, whereas the next longest move was about 310 miles. By removing the two farmers who moved the greatest distance, the average distance moved by the remainder of the group drops to 30.5 miles. This figure compares much more closely to 20.7 mile average of the stable group which had a maximum move of only 150 miles.

A similar comparison was made when observing those leaving farming. Their distribution showed three farmers moving about 1,000 miles, one farmer 850 miles and the next longest move was 450 miles. When these four farmers were not considered in this group, the average move became 40.3 miles, a figure much closer to that of the other two groups.

Another means of comparison was to identify the proportion of farmers moving 25 miles or less, a relatively short distance in this day and age. Seventy-three (73) percent of the incoming farmers were included in this classification, compared to 69.6 percent of the outgoing farmers and 83.1 percent of the stable group of farmers. These figures indicate greater mobility of recent rural movement as compared to the movement of the stable group of farmers that occurred in years past, however, the contrast could not be considered significant.

The outgoing farmer was asked to identify the present employment status of himself and his wife. Out of the entire group 23 of the men indicated they were employees of a business, 8 were retired, 4 were self-employed or were operating a business, 5 were unemployed and only 1 was engaged in part time work. Four of the twenty-three who were presently an employee of a business indicated they were members of a union.

The responses also showed that 14 of the women were employed, another 1 was self-employed and 9 had part time employment. Only one of the fourteen women was a union employee.

Earlier a brief comment was made concerning tenure status on the previous and present farms. As another means of determining mobility of the various groups involved in the study, the participants were asked to identify the number of farms on which he had lived since starting in farming, the approximate age they started at the respective farmer tenure classifications, and the number of years they had maintained those classifications.

The average farmer has lived on 2.00 farms since entering the vocation. The incoming group averaged 2.23, the outgoing group 2.04 farms and the stable farmer 1.77 farms.

Forty-four percent (118) indicated they had lived on only one farm. The range was from nine to zero. (See Table VIII.) One farmer was living in town, but had recently purchased a farm which he was operating. Over 50 percent of the outgoing and stable farmers had resided on only one farm. The nature of this study would decrease this proportion for the group entering the occupation.

TABLE VIII

FREQUENCY TABLE OF NUMBER OF FARMS ON WHICH THE FARMER HAS LIVED, BY GROUP

Number of farms on which lived	Number Reporting Incoming Farmer	 Outgoing Farmer	 Stable Farmer
9	1		
8			
7	1	1	
6	1	1	2
5	4	1	2
4	10	3	2
3	16	8	13
2	38	8	37
1	37	24	57
0	1		
Total	109	46	113

The average age at which the farmers in the various groups started as a hired man, partner, renter, renter-owner and/or owner is shown in Table IX. The average farmer for the entire group shows a progression of starting as a hired man at 17 years, 2 months of age. He then became a partner at 21 years, 6 months; a renter at 24 years, 1 month; a part owner at 27 years, 7 months; and an owner at 33 years, 1 month.

With minor exceptions, this study shows the average ages of the farmers in the various classifications to be extremely close. One exception was that the outgoing farmer was a few years younger than his counterparts when becoming a renter-owner, but only four farmers were included in this category. It should be noted at this point that although the average age of ownership was very close for all groups, there were considerably fewer of the incoming farmers who had achieved this position.

The comment is frequently made that a young man cannot get started in farming today as readily as in years past. The findings of this study do not appear to support this claim.

TABLE IX

AGE AT WHICH STARTING FARMING AS A HIRED MAN, PARTNER, RENTER, RENTER-OWNER AND/OR OWNER, BY GROUPS

Classification		Total Group	Average Age Reported Incoming Farmers	Outgoing Farmers	Stable Farmers
Hired Man	(16- 9-26)*	17.2	17.6	15.6	17.5
Partner	(19- 3-40)	21.5	21.7	21.0	21.4
Renter	(78-29-68)	24.1	23.3	26.5	23.9
Renter-Owner	(14 -4-19)	27.6	28.4	21.5	28.3
Owner	(28-15-48)	33.1	32.4	34.8	33.0

* Denotes number of farmers reporting in each sub-group

Although the ages of entry for each of the categories was close by comparison, the number of stable farmers who had been hired men and partners was substantially more than the other groups, especially the partner classification. Forty stable farmers had been a partner in a farm operation compared to nineteen incoming farmers and only three outgoing farmers.

The other aspect of farmer tenure was the number of years in which the farmers were classified in the various categories previously identified. The outgoing farmer maintained his classification for more years than either of the other groups. (See Table X.)

TABLE X

APPROXIMATE YEARS THE FARMER HAS BEEN A HIRED MAN, PARTNER, RENTER, RENTER-OWNER AND/OR OWNER, BY GROUPS

Classification		Average Years Reported Incoming Farmers	Outgoing Farmers	Stable Farmers
Hired Man	(14-11-20)*	5.7	9.0	5.6
Partner	(19- 3-25)	5.3	11.7	8.6
Renter	(71-24-58)	9.4	13.7	12.3
Renter-Owner	(18- 4-23)	8.0	14.5	10.8
Owner	(32-20-66)	4.6	21.5	15.9

* Denotes number reporting per group

First observations can be quite misleading when reviewing this table. It does not show that the outgoing farmer was much slower at becoming established as a farm owner, but that he maintained his status for a longer period of time after once acquiring a specific classification. Three points to consider when deciphering this table are: (1) only the farmers who actually classified themselves as such are included in each category, (2) the number of outgoing farmers reporting are consideraly less in all cases and (3) this same group of farmers averages an older age which allows them more years on which to report.

An example of these points follows: Assume that the outgoing farmer started as a hired man at the average of 15.6 years (Table IX). By reading the table directly and with no consideration to the previous points, the farmer would become a partner at age 24, a renter at age 36, a renter-owner at age 50 and an owner at age 64, would finally leave farming at the ripe old age of 86. This is not probable considering that the average age of the outgoing farmer was only 50 years.

Even though the incoming farmers were somewhat younger, this table implies that incoming farmers do advance more rapidly towards ownership, considering that his current average age was near 35. It also implies that the younger farmers achieve the classification of renter quickly but the progress toward ownership slows down at this point.

Farmer participation in the various federal subsidy programs, especially the last two years in farming, was identified to see if it was more characteristic for one group to participate than either of the others. The fact that such federal programs have been in existence for many years would give the older farmers greater opportunity to participate for more years. In response to the number of years of such participation, the findings were related to age, with the incoming farmers participating the least and the outgoing farmers the most.

In response to the questions concerning farmer reliance on federal subsidies, the incoming group reported that 7.3 and 7.6 percent of their gross income last year and the previous year, respectively, were derived from federal programs. The stable group averaged 6.7 percent and 8.2 percent for the same years.

The outgoing group of farmers were asked to respond for their last two years while engaged in farming. Some, therefore, replied for the same years as the other two groups while others for one to three years previous, depending on when during the past three years they moved off the farm. There was very little difference in the federal programs during those years, however, so for purposes of this analysis direct comparisons to the other groups were made.

The outgoing farmers showed that 15.2 percent of their gross income was derived from federal programs the last year they were engaged in production agriculture, and 14.4 percent the previous year. This was nearly twice as much as the other groups, The possibility that the farmer who leaves the vocation was more reliant upon government subsidies than those who reamin in production agriculture is now raised.

To further investigate this attribute of the farmers, a distribution showing degrees of participation was developed for their last year of farming. (See Table XI). The range for the outgoing group extends considerably wider than for the other two groups. Whereas 33 percent of the gross income was the maximum figure for the incoming group, one return received from the stable group exceeds this, reporting an estimate

TABLE XI

FREQUENCY TABLE SHOWING GROSS INCOME PERCENTAGE DERIVED FROM FEDERAL PROGRAMS THE LAST YEAR OF FARMING, BY GROUPS

Gross Income		Frequency and Cumulative Proportion		
	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
99	1 (1.000)*		1 (1.000)	
60	1 (.995)			1 (1.000)
50	1 (.991)		1 (.968)	
35	1 (.986)		1 (.936)	
33	2 (.981)	1 (1.000)	1 (.903)	
30	3 (.972)	1 (.988)		2 (.990)
25	7 (.958)	2 (.976)	4 (.871)	1 (.970)
20	13 (.926)	7 (.952)	3 (.742)	3 (.960)
17	1 (.865)			1 (.931)
15	8 (.861)	5 (.868)		3 (.921)
14	1 (.823)			1 (.891)
12	1 (.819)	1 (.807)		
11	1 (.814)			1 (.881)
10	1 (.809)	14 (.795)	9 (.645)	18 (.871)
9	1 (.619)			1 (.693)
8	8 (.614)	3 (.627)		5 (.683)
7	1 (.577)	1 (.590)		
6	10 (.572)	5 (.578)		5 (.634)
5	27 (.526)	8 (.518)		19 (.584)
4	8 (.400)	5 (.422)		3 (.396)
3	7 (.363)	2 (.361)		5 (.366)
2	4 (.330)	1 (.337)	1 (.355)	2 (.317)
1	4 (.312)	1 (.325)	2 (.323)	1 (.297)
0	63 (.293)	26 (.313)	8 (.258)	29 (.287)
Total Number =	215	83	31	101

* Cumulative frequency

of 60 percent, and three of the outgoing group were in excess with figures of 35, 50 and 99 percent. This amounts to nearly 10 percent of the total reporting in this group.

The proportion reporting income from federal programs at two percent or less is quite comparable for all groups. Those leaving farming, however, advance considerably slower in cumulative frequency as the income percentage increases which indicates a greater reliance on federal subsidies. Even though the number reporting in this group is smaller in comparison, it appears that the outgoing farmers depend on the government to a higher degree than do the incoming farmers or those who remain in production farming. As an illustration, 25.8% of the outgoing farmers received one-fourth or more of their gross income from federal programs, only 4% of the stable and 4.8% of the incoming farmers received an equivalent amount from federal programs.

A somewhat surprising finding was that the entire group of farmers had averaged only 1.2 years of participation in an organized record analysis program. The variation was very slight between the groups with a very slight increase being associated with the older farmers.

Most of the farmers responded openly to questions concerning the employment of hired help and to the off-farm employment by the farmer or his wife.

Labor appears to have been one of the reasons for farmers leaving the farm as the 63.5 days of hired labor reported for this group was considerably more than either of their counterparts; namely, about a month more than the stable group and about 16 days more than the incoming farmers. The figures also show that the incoming farmers utilized 8.2 days more in the new situation than they were utilizing on the previous farm.

One further comment should be made regarding hired labor. Whereas the stable and outgoing groups increased slightly in the number of farmers employing hired labor last year as compared to the previous year there was a decided increase (56 to 102) in the number of incoming farmers who hired extra labor for their new operation. This indicates that as the number of farms decreases and the size of farms increases, many of the expanded operations require additional labor to maintain their operation.

There is an increasing trend in the number of days of off-farm work done by the farm operator within each group. Just as it was determined that the group of farmers leaving the occupation hired the most additional manpower, so did this same group work most off the farm. The last year in farming this group averaged 48.4 days of off-farm work compared to 36.5 days for the incoming group and 25.9 days for the stable group during their last year of operation.

The stable group had about a 10 percent increase in number of farmers who worked off the farm during the two most recent years, while the outgoing group increased almost 20 percent. The number of farmers in the incoming group working off the farm increased 80% from their previous farm operation. It appears that a good number of incoming farmers realized a need for more off-farm work in order to meet their financial commitments which accompanied the expanded farm operation.

Employment for the wife can have a bearing on whether or not the family expenses are met. The expectation was that when families change locale, more wives would seek outside employment to assist in meeting new family expenditures.

The year prior to the family changing status 56 wives were working off the farm an average of 33.2 days. Last year 101 wives worked off the farm approximately the same number of days. The increase of about 80 percent of the wives working correlates very closely to that previously found for off-farm work by the husbands of this same incoming group of farmers.

By comparison, there was a moderate increase in the number of working wives in the other two groups (about 10 percent), with about a 50 percent increase in the days of employment; namely, from 23.7 to 36.6 for the stable group and from 35.7 to 54.7 for the outgoing group, both of which exceed that of their spouse.

The outgoing group was asked to identify their present type of employment. Five of the twenty-eight farmers responding indicated that they were presently employed in the same type of work as when they were farming and working part-time, a figure the investigators had anticipated would be somewhat higher.

In response to whether or not the wife was presently employed, 26 said yes, 15 said no and 6 failed to respond. Of the group working, half indicated they were presently engaged in the same type of employment. Although the correlation of employment type was higher for the wives than the husbands, the job type available to the wives would be somewhat narrower in selection. Therefore, the relevancy to an attribute which contributes to identification of a potential occupational change is minimized.

Possibilities of dual interpretation to a question were identified upon reviewing the replies to the question: "Approximate per cent of purchases for which the farmer uses credit to obtain: Machinery _____%, Livestock _____%, Feed, Seed and Fertilizer _____%, When Buying Land _____%." Some interpreted this to mean the number of purchases for which credit was used, while others thought in terms of the dollar amount for which credit was used.

In all four of the stated categories, the outgoing group responded with the highest average percentage of credit utilization. (See Table XII.) In like manner, in all but one category, the stable group of farmers averaged the lowest percentage. The one exception was for feed, seed and fertilizer.

TABLE XII

PERCENT OF CREDIT USED IN PURCHASING MACHINERY, LIVESTOCK, FEED, SEED AND FERTILIZER AND LAND BY GROUPS

Category	Average Percent Reported Incoming Farmers	 Outgoing Farmers	 Stable Farmers
Machinery	51.6	61.4	44.3
Livestock	49.5	53.8	43.3
Feed, Seed & Fertilizer	40.6	56.7	43.0
Land	69.6	80.0	69.3

The degree of solvency was next considered. Even though the farmers of the outgoing group were older than those remaining in agriculture, they were not as solvent. (See Table XIII). The stable group of farmers averaged a net worth of $62,600 compared to $51,300 for the outgoing group and $33,700 for the incoming group. Although those leaving farming had a lower level of indebtedness with $18,300 as compared to $32,600 for the stable farmer and $38,900 for the incoming farmer, their total assets of $72,400 was $21,500 less than for the stable group, but only about $3,000 more than those entering farming or changing status. As would be expected, this last group would be identified as having the most liabilities due to their situation of working toward successful establishment in farming.

Other personal attributes which were identified in the study included participation in political, civic and religious activities.

Thirty-nine farmers indicated involvement as either a candidate for a political office or as actively working on someone's campaign, ten of which were incoming farmers, nine were outgoing farmers and twenty were stable farmers. Considering the relative ages of the groups and the total number in each group, the distribution appears to be quite normal.

TABLE XIII

ASSETS, LIABILITIES AND NET WORTH BY GROUPS

Classification		Average Reported Incoming Farmers	Outgoing Farmers	Stable Farmers
Assets	(76-22-80)*	$69,500	$72,400	$93,900
Liabilities	(75-22-81)	$38,900	$18,300	$32,600
Net Worth	(80-25-86)	$33,700	$51,300	$62,600

* Denotes number reporting per group

Civic activities in which the farmers participated will be discussed under the sub-headings of farm organizations, community service organizations and other civic activities.

The farm organization having the greatest participation by the farmers in the study was the Farm Bureau. Eighty-one farmers have been members of this group compared to 52 Farmers' Union members, 51 National Farmers' Organization members and 2 Grange members (See Table XIV).

The greatest participation in each of these farm organizations was found in the group of stable farmers with the same order of support as shown by the total group. Whereas proportionately fewer outgoing farmers were members of the various farm organizations, their support also followed the same pattern, namely, Farm Bureau, Farmers' Union and National Farmers' Organization with none being members of the Grange.

The incoming farmers did not follow the same pattern of support. Although Farm Bureau membership was the largest for this group, it did not appear to attract the same proportion of farmers as the other two groups, especially the stable group. The National Farmers' Organization appears to be gaining

TABLE XIV

FARMER MEMBERSHIP IN CIVIC ORGANIZATIONS, BY GROUPS

Organization	Number Reporting			
	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Farm Organization				
1. Farm Bureau	81	24	12	45
2. Farmers' Union	52	15	9	28
3. Grange	2	0	0	2
4. National Farmers' Organization	51	21	7	23
Community Service Organization				
1. Jr. Chamber of Commerce	6	4	0	2
2. Lions, Elks, Moose Kiwanis, etc.	14	9	2	3
3. Sr. Chamber of Commerce	1	0	1	0
Other Civic Organizations				
1. Conservation Club	20	9	2	9
2. Fair Board	6	3	1	2
3. Parent-Teacher Association	90	24	17	49
4. Rural School Board	18	6	3	9
5. Community School Board	18	6	2	10
6. Sportsman's Club	38	8	9	21
7. Miscellaneous Organizations	42	16	8	18

more strength with the younger populace of the incoming group than with the other groups as compared to the Farmers' Union which appears to attract fewer incoming farmers, proportionately.

The Grange appeal for farmers was not too great in the area included in this study, considering that only two farmers out of the two-hundred-seventy-nine were members.

The incoming group of farmers was found to be more involved in community activities than the other two groups combined. This younger group of farmers were more active in their local Chamber of Commerce as well as the various service organizations. There appears to be considerable greater concern for the community on the part of incoming farmers than with the older farmers which constitute the outgoing and stable farmers included in this study.

The Parent-Teacher Association received the greatest participation by the farmers in civic organizations with the older farmers in the outgoing and stable groups showing a substantially higher proportion of participation. The miscellaneous category includes participation in activities which the farmers identified specifically. Five activities listed by more than one farmer were Cooperative Creamery Board, Town Board, 4-H Leader, Agricultural Stabilization and Conservation Committee and Elevator Board of Directors. None of these were identified by more than three farmers in the study, however.

Participation in church activities was another personal characteristic included in the study. The older farmers were found to be the most active participants in the activities of the church. Forty-six percent of the farmers have served on the church board, 19 percent have been a teacher in their church school and 15 percent have sung in the church choir.

Military service, whether voluntary or involuntary, was another characteristic which was studied. Whereas 40.6 percent of all of the farmers had served in some branch of military service 47.8 percent of the incoming group, 27.7 percent of the outgoing group and 38.7 percent of the stable group had spent some time in the service. This was one trait in which the older the age of the farmers, the less the participation.

The final personal attribute question asked the farmer pertained to his desirability to move again within five years. The overwhelming majority of the farmers had no such desire to move. (See Table XV). Of all the groups, a higher proportion of outgoing farmers showed an interest in relocating again, which may be an indication that the move from the farm did not result in as satisfying an experience for this group as did the relocation of the farmers within the farming occupation.

TABLE XV

FARMERS HAVING A DESIRE TO MOVE AGAIN WITHIN FIVE YEARS, BY GROUPS

Farmer Response	Number Reporting Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Desires to move in 5 years	46	19	10	17
No desire to move	213	91	27	95
No response received	19	2	10	7

Table XVI gives a closer look at the responses of the farmers indicating a desire to move again. Financial improvement, in the form of higher income, fewer hours, less risk, competition and/or some other financial reason was the most commonly listed factor for potential movement, a response fairly uniformly distributed. The next most frequently listed factor dealt with increased size of operation, independence or better facilities; factors as common to labor as to the farmer.

An interesting concept which this table brings to light concerns non-farm employment. Only one of the farmers actively engaged in farming indicated a desire to move for purposes of non-farm employment or job opportunities. He gave as his reason, "to find something better than farming."

TABLE XVI

REASONS FOR FARMERS DESIRING TO MOVE, BY GROUPS

Reason	Incoming Farmers	Outgoing Farmers	Stable Farmers
1. Financial Improvement	4	2	6
2. Bigger Farm	4		2
3. Buy Farm	4		1
4. Better Farm	3		
5. Health		1	2
6. Job Advancement or Opportunity		3	
7. Better Buildings	1		1
8. Move to Home Farm	1		1
9. Better Landlord	1		
10. Closer to Employment		1	
11. Find Farm on Which to Live	1		
12. If Renter Doesn't Work Out		1	
13. Improve Self	1		
14. Place was Sold			1
15. Retire			1
16. Something Better than Farming			1
17. Warmer Climate		1	
18. Work on Mission Field		1	

Education Attributes

We turn our attention next to some of the educational attributes of these farm families. High school and post-high school education were considered separately.

The years of formal schooling for each group was found to be very similar to that of the national average of farmers with respective ages. The group leaving farming, averaging in age somewhat older than others, had 9.7 years of formal education. (See Table XVII.) The stable group averaged 10.5 years and the incoming group, the youngest group, averaged

11.1 years. Respectively, the same groups showed 40.4 percent, 60.7 percent, 73.2 percent receiving twelve years of schooling.

The wives had from 0.7 years to 1.0 years more education than their spouses with an average of 10.7 years of education for the outgoing group, 11.4 years for the stable group and 11.8 years for the incoming group. Respectively, these women had 66.7 percent, 81.7 percent receiving twelve years of schooling.

Only 23 percent of the farmers had any post high school training compared to 39.6 percent of their wives. Once again the increased emphasis on more education which has accompanied the changing times becomes evident as we compare the various groupings.

TABLE XVII

HIGH SCHOOL AND POST-HIGH SCHOOL EDUCATION OF THE FARMER AND HIS WIFE, BY GROUPS

Education Classification	Incoming Farmers	Outgoing Farmers	Stable Farmers
FARMER			
Years of Elementary-High School	11.1	9.7	10.5
Months of Other Post-High School Training	4.6	3.5	2.7
Months of I.O.F. Training	4.6	6.0	5.8
Number of Vo. Ag. Adult/Y.R. Classes Attended	2.1	2.5	2.9
WIFE			
Years of Elementary-High School	11.8	10.7	11.4
Months of Post-High School Training	9.3	6.7	10.1
Vo. Ag Classes Attended with Spouse	.5	.7	.6

Both the husbands and their wives in the group leaving production agriculture had the lowest proportion enrolling in post-high school education as seen in Table XVIII. Only 17.0 percent of these farmers had engaged in additional schooling compared to 19.3 percent of the stable farmers and 29.5 percent of the incoming farmers. Respectively, the figures for the women were 33.3 percent, 42.7 percent and 38.9 percent. For some reason, proportionately more of the women in the stable group received additional education than in the incoming group.

Whereas the husbands responded that vocational school was the most common post-high school training, followed by university and college, such was not the case with their wives. They reported that college was

TABLE XVIII

POST-HIGH SCHOOL TRAINING TYPE AND FREQUENCY OF THE FARMERS AND WIVES, BY GROUPS

	Number Reporting			
Type of Training	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
FARMER				
Vocational Training	24	11	2	11
University	18	12	3	3
College	15	8	3	4
Junior College	4	1		3
Bible Institute	2			2
Manpower Development	1	1		
WIFE				
College	62	21	12	29
Vocational Training	17	8	1	8
Nursing School	16	12	2	2
University	8	1		7
Junior College	2			2
Bible Institute	1			1
Manpower Development	1			1

over three times more popular than either vocational training or nursing school. There was no major difference between the various groups for either the husbands or the wives.

Another area of instruction which was available to some of the farmers was the veteran's training program. Only 20.1 percent of the entire group indicated having participated in the individual on-farm program with the incoming group maintaining the lowest participation rate and also the shortest duration of participation. His average of 4.6 months was about one month less than the other farmers.

The other type of instructional program included in the study was that offered through the local vocational agriculture department in the form of adult farmer and/or young farmer classes. The incoming group averaged attending only 2.1 classes, the stable group 2.9 classes with the outgoing group locating midway between the other two groups. The wife was asked to indicate the number of classes which she had attended along with her husband. The result averaged just above one-half of a class per wife.

The formal and informal education of the farmer and his wife can be summarized as follows:

1. The average farmer in the incoming group has 11.1 years of formal education, 4.6 months of post-high school training, 4.6 months of veteran's training, has attended 2.1 adult or young farmer classes. His wife has averaged 11.8 years of formal education, 9.3 months post-high school training and has attended 0.5 adult or young farmer classes with her husband.
2. The average man who left farming has 9.7 years of formal education plus 3.5 months of post-high school training, 6.0 months of veterans training, has attended 2.5 adult or young farmer classes and has a wife with 10.7 years of community schooling, 6.7 months of post-high school education and has attended 0.7 adult or young farmer classes with her husband.
3. The average stable farmer has 10.5 years of formal education plus 2.7 months of post-high school education, 5.8 months of veteran's training, has attended 2.9 adult or young farmer classes and has a wife with 11.4 years of schooling plus 10.1 months of post-high school training and has attended 0.6 classes with her husband.

As a means of gaining insights into the educational attributes of the farm families, the educational aspirations of their children were identified in the areas of vocational-technical training, community or junior colleges and university or college.

There were 535 children accounted for in the evaluation of educational plans, 272 of which were sons and 263 were daughters. The families indicated the present and past enrollment in post-high school institutions plus their expectations for the future. The distribution for the entire group identified 12 percent for which there was no form of post-high school training anticipated, 22 percent interested in vocational-technical schools, 13 percent destined for a community college or junior college and the remaining 53 percent would be attending a college or university. (See Table XIX.) The comparative breakdown for the sons and daughters came within two percentage points on all four categories with a slight edge for university or college attendance going to the sons and the same edge for community or junior college enrollment for the daughters.

There was greater variation, however, when the individual groups were compared with the greatest variation being identified in the group leaving farming. They had a slightly lower percentage of their children having high school as their terminal form of education. (10% compared to 14% for the incoming group and 11% for the stable group.) The outgoing group also indicated below average participation in the community and junior college category (9%, 15% and 14% respectively), a decidedly lower than average figure for vocational-technical plans (12%, 25% and 23% respectively) with considerable more emphasis being placed on the university or college aspiration category (68%, 46% and 52% respectively).

TABLE XIX

EDUCATIONAL ASPIRATIONS IN NUMBER OF CHILDREN ATTENDING POST-HIGH SCHOOL INSTITUTIONS IN PRESENT, PAST AND FUTURE, BY GROUPS

Type of Post-High School Education	Sons		Daughters	
	Now or In Past	In The Future	Now or In Past	In The Future
TOTAL GROUP				
No Form of Post-High School Training	24	7	24	9
Vocational-Technical School	17	43	24	33
Community or Junior College	11	21	10	30
University or College	45	104	41	92
INCOMING GROUP OF FARMERS				
No Form of Post-High School Training	11	4	7	2
Vocational-Technical School	4	20	6	13
Community or Junior College	2	10	3	11
University or College	4	41	5	28
OUTGOING GROUP OF FARMERS				
No Form of Post-High School Training	2	1	4	2
Vocational-Technical School	1	4	2	4
Community or Junior College	1	2	0	5
University or College	14	15	13	18
STABLE GROUP OF FARMERS				
No Form of Post-High School Training	11	2	13	5
Vocational-Technical School	12	19	16	16
Community or Junior College	8	9	7	14
University or College	27	48	23	46

In evaluating the preceding findings, several precautions should be taken before arriving at any decision relevant to educational attributes of these groups of farmers. Only 54.6 percent of the children which were identified earlier in the chapter while discussing the size of family are accounted for in the educational plans. The highest proportion of accountability is the stable group with 60 percent and the lowest is the outgoing group with 48 percent. Although this study has consistently been concerned only with the responses received, it is difficult to overlook possible distortions when less than 50 percent of earlier identified figures are accountable.

Rationalizations can readily be made. The group leaving agriculture averaged older children, more of which were away from home, so perhaps many of them were not accounted for unless they had participated in some form of post-high school training. These same children may have become employed prior to when the increased emphasis became prevalent concerning vocational-technical school or the expansion of the states' junior college program. Another possibility is that because these farmers are away from production agriculture for the most part or they may not have had what they considered a successful experience on the farm, they now feel a greater need for college training rather than vocational-technical training. The possibility of these arguments being valid still exists, even though they cannot be substantiated.

One consoling point is identified from the figures, however. Only 12 percent of the children are currently anticipated to have high school as their terminal program of education.

Some attitudinal questions were raised relative toward education and more specifically toward rural community educational programs. When asked for their subjective opinions on whether the curriculum offered in their community school was adequate for both college bound and non-college bound students, 90 percent considered that the courses offered were adequate for college bound students, but only 80 percent replied the same for the non-college bound student. An interesting aspect to these questions was that 6 percent failed to answer the question concerning the curriculum for college preparation and 11 percent for the non-college student, with the highest proportion being identified in the group leaving the farm. This could indicate that more people consider themselves capable of judging an academic curriculum than a vocational curriculum!

Another subjective question concerning rural community schools asked the farmer to evaluate whether the quality of education offered by the present community is better or poorer than that offered in the community from which he moved. Quite understandably, several did not respond to this question because they had remained in the same community school system through the move or they had deemed themselves incapable of such a judgment.

One-hundred-twenty-six farmers did reply, however, with ninety-eight indicating that in their judgment the quality of education was better in the community into which they had moved. This tends to imply that some farmers do take the community educational program into consideration when relocating, although the incoming farmer appears to give this less consideration. Responses by the various groups showed tabulations of 33 better to 16 poorer with this first group, 25 better to 2 poorer for the outgoing group and 40 better to 10 poorer for the stable farmer. It is relatively easy for a person to rationalize when he is asked for a judgment decision followed a recent move. The responses definitely favor this factor as a possible criteria for those leaving the field of production agriculture.

Additional queries requiring judgment decisions were made concerning the emphasis placed on courses and activities in rural high schools. One-hundred-twenty-five farmers made responses pertaining to courses or activities which needed more emphasis and 91 responded with recommendations for less emphasis. The most concern was found with the stable group of farmers. This was, perhaps, because of the tenure of this group in the community and also because their age group would presently have more children of high school age resulting in more immediate concern.

The most common recommendations for courses or activities needing more emphasis in the rural high schools were: (1) vocational-technical courses, including agriculture; (2) science; (3) mathematics and (4) foreign languages. There appeared to be a fairly even split between the vocational courses and the college preparatory courses, with somewhat more requests for vocational courses. A more complete breakdown of responses is found in Appendix H.

The group leaving the farm did not exhibit as much interest in vocational training as did the other two groups, nor did they show concern for emphasizing agriculture. The stable group tended to place more emphasis on the vocational courses than did either of the other two groups.

Courses or activities currently receiving too much emphasis did not receive as broad an array of responses as did the previous problems. The general consensus of each of the groups was that too much emphasis was being placed on athletics in the rural high schools. There was more criticism of this activity than all of the others combined. (See Appendix I.) The stable group of farmers appears almost adamant in this respect.

None of the other courses or activities listed received numerous criticisms. Social studies, extra-curricular activities and English were identified five or six times as being over-emphasized and sex education four times.

In general, it can be concluded that with the one exception of athletics, farmers were more concerned with what rural high schools should emphasize than with what the schools are doing wrong.

Forty-eight farmers indicated that their community high school offered on-the-job training for students preparing for employment other than farming. (See Table XX). The intent of this inquiry was not to identify the schools including such a program in their curriculum but to develop a means of identifying the attitudes of the farmers toward such a program.

The farmers who identified their schools as having on-the-job training were asked whether they considered the program to be beneficial and worthy of continuation. All of the farmers responded affirmatively. When asked whether or not the program should be expanded, 37 of the 48 answered yes and 4 answered no.

TABLE XX

NUMBER OF RESPONSES TO QUESTIONS CONCERNING NON-FARM ON-THE-JOB TRAINING IN COMMUNITY HIGH SCHOOLS, BY GROUPS

Questions Asked:

1. Does your community have a high school with an instructional program offering On-The-Job training for students preparing for employment? (other than for farming) ____Yes, ____No

If Yes:

2a. Do you feel such a program is beneficial and should be continued?

2b. Do you feel such a program should be expanded?

2c. Do you feel such a program should be developed for adults seeking employment in business or industry?

If No:

3a. Do you feel such a program should be developed for high school children in the schools?

3b. Do you feel such a program should be started for adults seeking employment in business or industry?

Responses:

Above Question	Form of Response	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
#1.	Yes	48	14	17	17
	No	192	76	23	93
#2a.	Yes	48	14	17	17
	No	0	0	0	0
#2b.	Yes	37	11	16	10
	No	4	3	0	1
#2c.	Yes	32	8	15	9
	No	9	4	0	5
#3a.	Yes	116	41	18	57
	No	52	25	2	25
#3b.	Yes	106	41	16	49
	No	48	17	5	26

This same group was asked whether or not such a program should be developed for adults seeking employment in business or industry. Whereas all of the responding farmers in the outgoing group of farmers answered yes, fewer farmers in the other two groups did so, namely about two-thirds. An interesting concept developed in regard to this point. It would be anticipated that the group moving out of production agriculture would be interested in such a program for adults. However, two-thirds of the farmers remaining in production agriculture are also interested in the development of on-the-job training for adults. This illustrates that farmers are concerned about fellow farmers who leave the field.

The farmers who indicated that their community high school did not offer a program of on-the-job training were asked very similar questions in an attempt to identify their attitudes toward such a program.

Of the 168 farmers responding, 116 indicated they thought such a program of on-the-job training should be developed for high school students in the rural community schools. This means that 31 percent of the farmers responding either do not approve of such a program, do not fully understand such a program thereby not being in favor, or consider that rural community schools have such a broad program at the present time that they cannot undertake new programs.

One-hundred-six out of 154 farmers indicated a training program should be started for adults seeking employment in business or industry, a proportion very close to those who considered such a program as feasible for high school youth.

Proportionately more farmers who left farming were concerned with such a program for both high school youth and adults than the other two groups of farmers. Whereas more of the incoming farmers considered such a program less important for high school youth than for adults, more farmers in the stable group considered such a program more feasible for the high school youth.

The farmers who indicated an existing program of job training were asked to identify the areas of instruction which should be expanded for high school children. Similarly the farmers who did not indicate an existing program identified the areas in which such a program should be developed.

Trade and industry programs received the greatest response followed by business and commercial training and other vocational programs. Two farmers appeared somewhat adamant about such training programs by indicating that "schools should be for education only and not for job training!" Appendix J delineates the on-the-job training programs which the farmers suggested for expansion or inclusion in the rural high schools.

The agriculture program in the respective schools were appraised to determine the present program and the attitude of the farmers toward an on-the-job training program in agriculture.

Sixty-two farmers indicated that their school offered on-the-job training in related agricultural occupations. (See Table XXI.) The farmers were also requested to give their impressions concerning such a program in agriculture and what types of programs if any, should be developed in agriculture. Over 75 percent of the farmers favored on-the-job training in related agricultural occupation. Proportionately more of the farmers leaving agriculture deemed such a program worthy of inclusion in the school curriculum.

This same group, however, had the fewest suggestions of related occupations to be included in the agricultural course of study (Appendix K). Farm management and record keeping received the greatest number of responses, followed by "farming," farm machinery and fertilizers.

TABLE XXI

NUMBER OF RESPONSES TO QUESTIONS CONCERNING AGRICULTURAL ON-THE-JOB TRAINING, BY GROUPS

Question: If the school serving you offers Agriculture in its curriculum: Does it offer instruction and On-The-Job Training for related Agriculture occupations?

Form of Response	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Yes	62	25	13	24
No	144	50	19	75

Do you feel such a program should be included in rural community high schools?

Form of Response	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Yes	159	57	28	74
No	48	18	4	26

When evaluating the responses, especially the two most frequently suggested, the investigators are of the opinion that many farmers are not knowledgeable of what is involved with on-the-job training programs, as offered in community high schools.

Personal Motivations

The farmers were asked to identify their reasons for moving to their present farm, or in the case of those leaving the farm to their present location. The reasons would vary with each individual situation but for purposes of comparison, several potential factors which might influence the decision to move were listed on the questionnaire with the option of writing in additional reasons.

The responses were tabulated in two separate ways. The first identified the number of factors influencing their decision to move. (See Table XXII.) Responses ranged from one to eight. The investigators are of the opinion that identifying fewer reasons yields a more delineating response because the farmer who checked several factors was probably identifying some factors incidental to his decision but which may have been improved or relieved as he considers his move in retrospect.

TABLE XXII

NUMBER OF RESPONSES AFFECTING MOVEMENT FOR FARM FAMILIES WITH SINGLE FACTORS IDENTIFIED, BY GROUPS

Responses	Incoming Farmers	Responses Outgoing Farmers	Stable Farmers
1. Eight Reasons Identified			1
2. Seven Reasons Identified	1		2
3. Six Reasons Identified	2	2	1
4. Five Reasons Identified		1	2
5. Four Reasons Identified	7	5	3
6. Three Reasons Identified	19	8	10
7. Two Reasons Identified	22	7	16
8. One Reason Identified	51	21	44
Breakdown of Single Identified Factors:			
a. Better facilities, overall	4		2
b. Death of family member		3	
c. Greater income possibilities		5	
d. Health		5	
e. Higher anticipated income	1		1
f. Lack of help		1	
g. Location better suited to markets, industry, etc.	2		
h. Lower labor requirement	1		
i. Move to larger farm	1		
j. Opportunity for farming for myself	11		15
k. Opportunity for farming in partnership	1		1
l. Retirement		4	
m. Soil type better suited to area of specialization			1
n. Took over home farm or parent's home farm	13		9
o. Unable to expand	4		2
p. Other than above	13	4	8

This does not imply that there should be only one influencing factor! There can very frequently be a combination of factors which when combined are sufficient to warrant a change. In the same respect, many farmers may have answered the question by identifying the primary reason affecting the change, and because of this Table XXII also identified the number of individual responses received from the farmers.

One-hundred-sixteen farmers reported only one factor on their questionnaires. The most commonly listed factors were the "opportunity for farming for myself" and "took over home farm or parents' farm."

Although the farmers had numerous factors from which to choose, many listed other reasons for movement. The most frequently identified factors for the incoming group were (1) taking over the home farm or parents' home, (2) opportunity for farming for himself, (3) better overall facilities and (4) inability to expand.

Health was the most common single factor listed for the outgoing group followed by greater income possibilities and retirement.

The opportunity to farm for himself and taking over the home farm or parents' farm were the main reasons for the stable group of farmers settling on their present farm. These are the same two choices as for the incoming group with the order of preference reversed. These two choices were followed by the factor of moving to a larger farm.

Forty-five farmers listed two reasons for moving, thirty-seven listed three reasons and twenty-seven listed four or more reasons. When all of these reasons are added to the previously mentioned single responses, the distribution becomes far more spread throughout all choices, as seen in Table XXIII.

The breakdown of the aggregate responses shows a degree of similarity to the single response breakdown; however, some additional influences are brought forth. Better facilities, higher anticipated income and movement to a larger farm received considerably greater emphasis than they had previously. Following are the major categorical responses for the various groups.

The opportunity to farm for himself becomes the most commonly listed reason for the incoming group of farmers. This is followed by better facilities overall, taking over the home farm or parents' farm, higher anticipated income and movement to a larger farm. Each of these factors were listed seventeen or more times as reasons for relocation.

Greater income possibilities became the most frequent response for the group leaving farming followed by health and lower financial burden, all of which received 10 or more responses from this smaller group of farmers. Lower financial burden wasn't identified as a single factor

TABLE XXIII

REASONS FOR MOVEMENT TO PRESENT LOCATION, BY GROUPS

Reasons	Number of Responses Incoming Farmers	 Outgoing Farmers	 Stable Farmers
1. Availability of credit	2		3
2. Better facilities, overall	24		15
3. Better school for family	4	1	3
4. Death of family member		3	
5. Desire for lower labor requirement		2	
6. Facilities better suited to specialization in major enterprises	9	1	2
7. Family motivations		2	
8. Greater income possibilities		16	
9. Health		11	
10. Higher anticipated income	22		22
11. Inadequate source of credit		2	
12. Lack of facilities		2	
13. Lack of help		5	
14. Less risks anticipated	5	8	
15. Location better suited to markets, industry, etc.	6	1	2
16. Lower financial burden	33	10	2
17. Lower labor requirement	5		2
18. Move to larger farm	17		22
19. Move to smaller farm	3		1
20. Opportunity for farming for myself	36		39
21. Opportunity for farming in partnership	6	1	7
22. Retirement		7	
23. Soil type better suited to area of specialization	7	1	6
24. Too small a farm		6	
25. Took over home farm of parents' farm	23		19
26. Unable to expand		7	
27. Other than above	13	10	9

for movement by any of the farmers. A factor mentioned by six or more from this group was, less risks anticipated.

The stable group still retains the opportunity to farm for himself as the response most frequently indicated as a motivational factor for movement. The next four common factors were higher anticipated income, movement to a larger farm, taking over the home farm or parents' farm and better facilities overall, all of which received fifteen or more responses by the farmers.

Numerous other factors not listed on the questionnaire were written on the returns by the farmers, however, none were frequent enough for further consideration.

CHAPTER IV

SUMMARY AND IMPLICATIONS

The responses of the 279 farmers included in this study are extremely varied. The personal and educational attributes were evaluated separately in the previous section and shall be summarized in the same way. The motivations for change shall then be added to the summary in arriving at implications which can be drawn from this study.

Several personal and vocational attributes were fairly uniformly characteristic of all of the farmers and cannot be considered when arriving at reasons for movement. These include:

1. the nationality of either the husband or the wife.
2. whether either spouse was reared on a farm or in the city.
3. the home farm size for either spouse.
4. the distance which either the husband or the wife currently lives from their home residence.
5. the type of farm on which either spouse was reared.
6. the number of sons which are residing at home.
7. the uniform increase in tillable and total acres from home farm to previous and present farms, not just in average.
8. the average age when starting at the tenure classification of hired man, partner, renter, renter-owner and owner.
9. the number of years in which the farmers had participated in government subsidy programs.
10. the number of years in which they had participated in programs of record analysis.
11. the number or proportion of farmers actively participating in local, county or state politics.
12. the proportion interested in moving again primarily for financial reasons.

Just as there were personal attributes which showed degrees of similarity among the three groups of farmers so were there educational attributes which failed to differentiate any of the groups of the study. Included in these attributes are:

1. the proportional distribution of sons and daughters for which educational plans included 22 percent in vocational technical schools, 13 percent in community colleges or junior colleges and 53 percent bound for a university or college.

2. 90 percent approval of local high school curriculums for the college bound student.
3. 80 percent approval of local high school curriculums for the non-college bound student.
4. a better educational program in the community into which the family moved.
5. vocational-technical courses as being an area needing greater emphasis in high schools, plus the subject matter areas of science, mathematics and foreign language.
6. athletics receiving far too much emphasis in the high schools.
7. on-the-job training as being worthwhile for inclusion in the high school curriculum and that it should be expanded to include a broader area of the trades and industry.
8. 75 percent favoring on-the-job training for high school youth in the area of agriculture.

Some form of post-high school education was planned for 88 percent of the children.

There were many traits which were found to be unique for each of the specific groups. The incoming group of farmers, which included those entering the field, changing status or merely relocating on another farm, was identified as:

1. being the youngest of the three groups - 34.5 years average.
2. having fewer children and children of a younger age.
3. having fewer farmers achieve the status of owner with proportionately more renters.
4. showing a higher degree of specialization in livestock enterprises.
5. farming the greatest distance from their home farm.
6. having lived on the fewest farms, with 70 percent residing on two farms or less since entering the occupation.
7. advancing more quickly toward ownership status.
8. utilizing more hired labor on their new place of residence with an increase of 82 percent more farmers employing farm labor than on the previous farm.
9. having 80 percent more husbands and wives employed off-farm jobs than had previously worked off the farms.
10. possessing more interest in the National Farmers' Organization.
11. being more involved in community service organizations.
12. having more farmers fulfill their military obligations.

Indications that the incoming farmer is more concerned with today's society and interested in becoming involved is supported by the finding that this group is less interested in the older, more established farm organizations and also that they are more active in the service organizations of their respective communities.

Educational traits which were identified with the incoming group included:

1. the highest level of educational attainment of both the husband and wife.
2. the highest proportion of husbands with post-high school training in the form of college or university.
3. the least individual-on-farm participation.
4. the lowest participation rate in adult or young farmer classes.
5. the highest proportion of wives participating in nurse's training.
6. the most concern for adult on-the-job training.

The lower age of this incoming group of farmers accounts, in part, for some of these findings, especially the increased educational attainment and the lower levels of I.O.F. training and participation in adult agriculture classes.

Several more traits were identified as being unique to the farmer who has retired or had left the farm for various reasons. Attributes which are included in this category are:

1. smaller farms at the time of departure when compared to the present farm size of the incoming farmer and the stable farmer, averaging 90-100 less in total acres and 75-85 less in tillable acres.
2. residing on the farm more than twice as long as either of the other two groups have resided.
3. none being classified as partners at the time of departure.
4. little specialization at departure time; a high percentage of "general" farms and very few with speciality in dairy or beef.
5. farmers moving a considerable greater distance than either group did with their most recent relocation.
6. individuals showing a relatively low level of entrepreneurship considering that of the 39 farm families who did not go into retirement only 4 husbands and 1 wife were self-employed, presently.
7. farmers being less prone to change as identified by the retention of farm tenure classifications for a longer period of time.

8. few had been classified as either partners or renter-owners during their advancement toward establishment.
9. a much heavier reliance on government subsidies, with greater than twice as high a percentage of gross income coming from such programs.
10. a heavier reliance on hired help in the operation of the business.
11. a heavier commitment to off-farm work.
12. an increase in number of wives working off-farm in addition to the considerable increase in the number of days of such employment.
13. a greater dependence upon credit in operating the farm business.
14. a lower level of liabilities, presently.
15. a lower level of participation in military service.
16. a higher proportion desiring relocation again or being undecided as to another change.

Farms which are considerably smaller in size and are general in nature, with a greater extent utilizing more hired labor and depending on credit to a greater extent in order to meet their financial commitments are those that may require replacements.

The educational traits which can be identified with the outgoing farmers include:

1. a lower than average attainment in high school of both the husband and his wife.
2. the greatest degree of individual-on-farm instruction through the veteran's training program.
3. the lowest proportion of husbands and wives participation in post-high school training.
4. the greatest concern for college or university training for their children but the lowest concern for other post-high school educational programs.
5. the least concern for vocational training programs in the high schools.
6. the greatest concern for developing on-the-job training programs for high school youth as well as for adults, both in the various vocational subjects and in agriculture.

Some discrepancies are readily identified in the educational attributes of the outgoing farmer, especially concerning vocational education. Although this group showed the least concern for vocational-technical training on both the high school and post-high school levels, they showed the greatest concern of all the groups for on-the-job training for both high school students as well as adults. These attributes appear to be in conflict with one another.

There were several farmer attributes that were characteristic of the farmer who had not moved in several years. The unique personal and vocational traits of the stable farmer were:

1. a higher proportion having attained ownership of their business.
2. a higher degree of specialization in the production enterprises.
3. more identified their farming experiences as including being a hired man and a partner.
4. less hired labor being utilized in their operation.
5. the least participation in off-farm employment.
6. a slight increase in the number of wives working off the farm and also in the hours of such work.
7. the least dependency on credit in managing the farm operation.
8. the greatest net worth of all the groups of farmers.
9. the greatest amount of participation in the rural farm organizations.
10. the greatest amount of participation on the local church board.

About half of these traits could be measured objectively when arriving at specific traits of stability as compared to non-stability, some of which would require accurate farm records. With such records the amount of hired labor, hours of off-farm work, credit utilization and current net worth could be used as a possible means of comparison for identifying the stable farmers.

The educational attributes which can be identified with the stable group of farmers includes:

1. having attended the most post-high school training for the classes offered through the local vocational agriculture department.
2. possessing the most post-high school training for the wife in the form of college or university.
3. placing the greatest amount of emphasis on vocational-technical training in the high school.
4. feeling very strongly that athletics is emphasized far too much in the rural high schools.
5. showing more concern for on-the-job training for high school students than for adults.

More consistency of attitudes is noticeable in this group than in the outgoing group, especially in the area of vocational preparation and instruction which should be offered in rural community schools.

The opportunity of farming for himself was by far the most frequent reason given for the farmer who was becoming established and the stable farmer prior to his last move. Just as a businessman generally wishes to develop a business of his own, so do most farmers.

Another aspect which shows a close similarity between farming and business is the interest generated in making a move if a higher income is anticipated. This attitude was quite evident with all three of the groups included in the study.

Size of farm does appear to influence a farmers decision to stay in farming or to leave farming. A goodly number of those still actively engaged in farming indicated that one of their major reasons for moving to their present locale was the ability to move on to a larger farm. In like manner, several outgoing farmers identified the factors of being unable to expand and farming too small an operation as reasons for leaving production agriculture.

The outgoing farmer appears to be a person desiring more financial security even though it was previously indicated that they had a greater dependence on credit in maintaining their business. Two frequently identified reasons for leaving farming were to lower their financial burden and reduce risks in their new venture. The existing facilities did not have the influence on movement as it did for the incoming farmer and the stable farmer.

Just as retirement would be a factor only the outgoing farmer would consider, so was health a factor of consideration for this same group.

Whether or not a potential outgoing farmer can be identified objectively is questionable. Accurate financial records would be a prerequisite to such an identification and even with these readily accessible, it would be pure speculation primarily because of the difficulty involved in measuring the goals and objectives each farmer may have set for himself. Some people can live on far less than others and for personal reasons have no desire to move.

Some characteristics of the incoming farmer can be likened to the stable farmer, which indicate areas of commonality and which are subjective in nature. Incoming farmers follow a similar pattern of specialization in farming and advance more rapidly towards establishment in farming as an owner or owner-renter. They show a greater interest in the various farm organizations and in community activities. They collectively have had a greater amount of post-high school training and show more concern for vocational training in the high schools.

Even though incoming farmers have larger farms, similar to the stable farmer, they do not require as much hired labor as the outgoing farmer, nor do they work off-the-farm as much. Neither do they indicate as great a reliance on credit nor on government subsidies.

Although several traits have been identified which are more common with specific groups, goals and objectives of the respective farmers are necessary before prediction of success or failure in production agriculture can be made.

An accurate farm record analysis program is a must before such predictions or projections can be made and even then a critical approach may not be possible because of the subjectivity involved in making attitudinal decisions.

Some of the factors identified in this study may be used as guidelines in discussing traits which were found characteristic of the various groups and then through self evaluations a farmer may be able to make a comparison between himself and the attributes of the respective groups of farmers. In this way he might be guided or counseled in pursuing his objectives.

In an attempt to evaluate the procedure of using school census record as a means of identifying farmer movement telephone and electric company personnel were contacted to determine if any type of record maintained by the respective companies could be utilized to identify moving in and out of their respective areas. The hope was that sufficient records of hook-up and/or disconnect within the respective areas would reveal a means of cross-check against the school census information to determine the degree of coverage of movement in and out of school districts.

It was found that access to these records is extremely difficult to obtain, and also that the monthly reports are put on IBM sheets which are coded strictly for purposes of their official report, and therefore, the type of information that we would desire to obtain would not be available in this particular way. The only way movement in and out of their area could be if we would review their monthly reports as they submit them over a period of time, and in this way identify the number of farmers who are currently requesting hook-up or disconnect. In no way would it be possible to go back to the period of time included in this study as a means of cross-checking or cross-referencing. If a study were to be made whereby current movement was to be identified, it is the consensus of the investigators that this type of record should identify the same type of information obtained through school census data. The one exception would be that the personal contact and assistance rendered on behalf of school personnel in identifying the locale to which outgoing farmers move would not be available to the utilization of telephone or electric company record.

This study was designed to determine the feasibility of utilizing community schools as a source from which agricultural manpower flow can be identified. Undoubtedly, this study has shown that this possibility exists. With slight modifications in the study and with the implementations of more sophisticated questionnaires capable of evaluating attitudes, aspects of the educational structure as they pertain to manpower flow can be more greatly determined.

Characteristics of agriculture manpower mobility have been identified in this study. In addition, some of the motivational forces which influence the farmers' desires to enter into or depart from farming have been classified to some extent. A study much broader in scope than this pilot study would have to be conducted if flow patterns are to be developed.

Consideration should be given to receiving data in such a way that the characteristics of the various attributes can be ascertained more specifically. Considerations which the investigator has identified worthy of enumeration include the following:

1. the number of farms operated was not clearly defined for comparison purposes because of the possibility of a farmer being able to obtain experience as a hired man, partner, renter, renter-owner and owner all on one farm while another farmer might have to experience these tenure classifications on five separate farms. Clarification should be made somenow on the data collection instrument if such an attribute is to be included on future studies.
2. a means of identifying the most successful management or tenure steps toward establishment should be obtainable in any future study. Perhaps the most progressive stages could be patterned.
3. consideration should be given to determining the size of family in which the husband or wife were reared and whether or not any financial assistance was made available by family members to assist in becoming established or what role, if any, the home farm situation played in successful establishment.
4. obtain more quantitative measurements of participation with farmer's age and status.
5. consideration should be given to concentrating a study on those leaving agriculture or on those entering, only. More specifics could be determined in this manner.
6. identify and separate retired farmers from others who leave agriculture, for analysis purposes. If the intent is to identify attributes of outgoing farmers, such a preparation would make the findings more meaningful.
7. determine the current status of the outgoing farmer at the time of departure as a means of evaluating degree of entrepreneurship attained at the various levels of tenure. This study found only 4 of 47 farmers becoming entrepreneurs.

8. obtain more quantitative measurements of specific attributes and traits as a means of identifying characteristics unique to farmer status.
9. determine the relationship of financial security to motivations as an additional means of finding characteristics specific to various groupings.
10. identify more information concerning off-farm work done by the farmer and type of hired labor utilized.
11. rather than identifying the number of years of participation in farm organizations, determine the trend followed by the farmers concerning membership because several farmers have been members of more than one farm organization.
12. develop a means of determining whether or not reasons for movement given in retrospect are similar to reasons given in anticipation.
13. determine whether or not outgoing farmers would have remained in agriculture had the reasons for movement out of farming not existed or are there underlying personal motivations which lead a man to quit farming which are affecting him subconsciously.

Most of these suggestions for further study would require a sample size considerably larger than used in this study. There is much that could be done, however, in the area of agriculture manpower flow.

This pilot study has only scratched the surface in an area in dire need of additional research, especially now when the price-cost squeeze seems to becoming increasingly important in the operation of a business. Perhaps joining efforts should be extended among agricultural educators, educational psychologists, sociologists, agricultural economists, counselors and even industry in pursuing additional studies which expand on this descriptive study of agricultural manpower mobility.

This study has identified the community school as a base from which such manpower mobility can be identified with minor adaptations could be similarly identified and flow patterns developed. Procrastination will only delay potential solutions to an ever increasing problem of manpower flow. The rural area needs to accommodate better this flow because the urban areas cannot and should not need to accommodate the moving masses.

BIBLIOGRAPHY

Baumgartner, H. W. "Potential Mobility in Agriculture: Some Reasons for the Existence of a Labor-transfer Problem," Journal of Farm Economics, 47:74-82, February, 1965.

Bogue, D. J., Shyrock, H. S. Jr. and Hoermann, S. A., Subregional Migration in the United States. Oxford University: Scripps Foundation, 1957.

Borus, Michael E., "The Economic Effectiveness of Retraining the Unemployed, A Study of the Benefits and Costs of Retraining the Unemployed Based on the Experience of Workers in Connecticut," Yale University, New Haven, Connecticut. Graduate School, July, 1964.

Bowles, Gladys K. "Migration Patterns of the Rural-Farm Population, Thirteen Economic Regions of the United States, 1940-1950." Rural Sociology, 22:1-11, March, 1957.

Bowles, Gladys K. and Tarver, James D. "The Composition of Net Migration Among Counties in the United States, 1950-1960," Agricultural Economic Research, 18:13-19, January, 1966.

Brooks, Lyman B. and others, "Re-education of Unemployed and Unskilled Workers," Virginia State College, Norfolk Division, Report Number CRP-D-054, 1964.

Committee on Research in Education of Farm Veterans, "Education of Veterans in Farming," American Vocational Association, Inc., Washington, 1952.

Cvancara, Joseph, "Input-Output Relationships Among Selected Intellectual Investments in Agriculture," Ph.D. Thesis, University of Minnesota, St. Paul, Minnesota, 1964.

Department of Education, 1967-68 Minnesota Educational Directory, State of Minnesota, St. Paul, Minnesota.

Fleigel, Frederick C. "Obstacles to Change for the Low-Income Farmer," Rural Sociology, 25:347-51, September, 1960.

Gisser, Micha, "Schooling and the Farm Problem," Econometrica, 33:582-92, July, 1965.

Guither, Harold D. "Factors Influencing Farm Operator's Decisions to Leave Farming," Journal of Farm Economics, 45:567-76, August, 1963.

Henderson, James M. and Kreuger, Anne O., National Growth and Economic Change in the Upper Midwest, Minneapolis: University of Minnesota Press, 1965.

London, Jack and others, "Adult Education and Social Class," Survey Research Center, Report Number CRP-1017, California University, Berkeley, December, 1963.

Love, Edwin L., "Characteristics of Young Men Who Enter and Continue in Farming," Resarch Study, Master of Education, 1963, Pennsylvania State University, University Park, Pennsylvania.

Orr, Calvin R. and others, "SouthwesternState Development Project Relating to Educational Needs of Adult Agricultural Migrants," Colorado State Department of Education, Denver, Report Number CRO-K-005, 1965.

Persons, Edgar and Swanson, Gordon I., "An Economic Study of the Investment Effects of Education in Agriculture," U.S. Office of Education, Project 427-65, Washington, D.C., 1968.

Schultz, Theodore, "Education and Economic Growth," Social Forces Influencing American Society, The National Society for the Study of Education, Chicago, Illinois, 1961

Swanson, Gordon I. and Persons, Edgar, "Educational Restrictions in Agricultural Success and the Relationship of Eduducation to Income Among Farmers," U.S. Office of Education, Project 2604, Washington, D.C., 1966.

Taeuber, Conrad, "Economic and Social Implications of Internal Migration in the United States," Journal of Farm Economics, 41:1141-54, December, 1959.

Van Loon, J., "Farm Labor Problem, 1906," Agricultural History, 39:30, April, 1965.

Waldo, A. D., "Impact of Outmigration and Multiple Jobholding Upon Income Distribution in Agriculture," Journal of Farm Economics, 47:1235-44, December, 1965.

APPENDIX A

SCHOOLS CONTACTED ASKING THEIR COOPERATION IN THE STUDY AND THE REACTION TO THE REQUEST

School	Affirmative Response	Negative Response	No Response Received
1. Kasson-Mantorville			X
2. Delevan	X		
3. Alden	X		
4. Lynd	X		
5. Lakefield	X		
6. Harmony	X		
7. Dover-Eyota			X
8. Magnolia			X
9. Waldorf-Pemberton	X		
10. Garden City			X
11. Ceylon		X	
12. West Concord			X
13. Walnut Grove	X		
14. Granada			X
15. Mabel			X
16. Mountain Lake			X
17. Lewiston	X		
18. Emmons	X		
19. Adams	X		
20. Elgin		X	
21. Good Thunder			X
22. Sherburn	X		
23. Lamberton	X		
24. Jeffers	X		
25. Madelia	X		
26. Grand Meadow			X
27. Plainview	X		
28. Freeborn			X
29. Kiester			X
30. Sleepy Eye	X		
31. Winnebago	X		
32. Wabasha	X		
33. New Richland			X
34. Ellendale			X
35. Balaton	X		
36. Round Lake	X		
37. Glenville			X
38. Wells	X		
39. LeRoy	X		
40. Morristown			X
41. East Chain	X		
42. Butterfield			X
43. Hills-Beaver Creek			X
44. Cleveland			X

APPENDIX A - continued

	School	Affirmative Response	Negative Response	No Response Received
45.	Minnesota			X
46.	Preston	X		
47.	Fulda	X		
48.	Peterson			X
49.	Wabasso	X		
50.	Byron	X		

APPENDIX B

NUMBER OF FARMERS IDENTIFIED PER PARTICIPATING SCHOOL AND THE CATEGORICAL GROUPING FOR QUESTIONNAIRES SENT TO THE FARMERS

School	Number Identified	Entered or Changed Status		Left or Retired	No Move in 6 Years
1. Adams	39	15	*(1)	7	16
2. Alden	56	20		14	22
3. Balaton	46	16	(1)	10	19
4. Byron	46	22	(1)	7	16
5. Delevan	27	9	(1)	4	13
6. East Chain	40	12		9	19
7. Emmons	36	14		6	16
8. Fulda	99	38	(1)	27	33
9. Harmony	68	29	(3)	10	26
10. Lamberton	63	26	(1)	13	23
11. LeRoy	57	22	(1)	14	20
12. Lewiston	34	16	(1)	2	15
13. Lynd	30	11		6	13
14. Jeffers	50	19	(1)	10	20
15. Lakefield	47	17	(2)	7	21
16. Madelia	89	47		17	25
17. Plainview	33	14		5	14
18. Preston	52	21	(2)	12	17
19. Round Lake	32	13		5	14
20. Sherburn	22	9	(1)	1	11
21. Sleepy Eye	58	28		9	21
22. Wabasha	29	11		5	13
23. Wabasso	39	10	(1)	10	18
24. Waldorf-Pemberton	72	19		21	32
25. Walnut Grove	59	30		5	24
26. Wells	49	18	(1)	9	21
27. Winnebago	30	12	(1)	5	12
TOTAL	1,302	518	20	250	514

* Current status unknown; both the Change of Status and the Left or Retired questionnaires were sent.

APPENDIX C

QUESTIONNAIRE SENT TO FARMERS IDENTIFIED AS EITHER ENTERING FARMING OR HAVING A RECENT CHANGE OF STATUS

Entry Into or
Change of Farming

Name ____________________
Address __________________
County ___________________

1. Farmer's Age___ Farmer's Nationality ____________________
The farmer was raised (1) on a___acre farm, or (2) in a city of ____people.
The location of such residence was (city & state)______________
Type of farm on which raised: ____________________

2. Wife's Age___ Wife's Nationality ____________________
The wife was raised (1) on a ___acre farm, or (2) in a city of ____people.
The location of such residence was (city & state)______________
Type of farm on which raised: ____________________

3. Ages of sons living at home ____, ____, ____, ____; away from home ____, ____, ____.

4. Ages of daughters living at home ____, ____, ____, ____; away from home ____, ____, ____, ____.

5. Present farm information:
Have lived on this farm about ____years and____months
The farmer's current situation can be classed as the following:
_____Owner _____Renter _____Hired Man
_____Onwer-Renter _____Parnter _____Farm Manager
Size of operation: ____total acres with ____tillable acres
Type of farm: __General __Hog __Dairy __Grain __Other (specify)
__Beef __Sheep __Poultry __Timber ____________

6. Previous farm information: (If not farming, give type of employment ______________)
Lived there about ___years and ___months
Status was: __Owner __Renter __Hired Man
__ Owner-Renter __Partner __ Farm Manager
Size of operation: ____total acres with ____tillable acres
Type of farm: __General __Hog __Dairy __Grain __Other (specify)
__Beef __Sheep __Poultry __ Timber ____________
Location of residence was (city & state) ____________________

7. The distance moved from previous location to present farm was about ___miles.

8. Reasons for movement to this particular farm were:
___Better facilities, overall
___Less risks anticipated
___Lower financial burden
___Lower labor requirement
___Opportunity for farming for myself
___Move to smaller farm
___Higher anticipated income
___Location better suited to markets, industry, etc.
___Move to larger farm
___Opportunity for farming in partnership

APPENDIX C - continued

8. ___Facilities better suited to specialization in major enterprise
___Better school for family
___Other (specify)
___Soil type better suited to area of specialization
___Took over home farm or parent's farm
___Availability of credit

9. Number of farms on which farmer has lived since entering farming____

10. Approximate age when the farmer started farming as a:
____Hired Man ____Renter ____Owner
____Partner ____Renter-Owner ____Farm Manager

11. Approximate years the farmer has been a:
____Hired Man ____Renter ____Owner
____Partner ____Renter-Owner ____Farm Manager
____Occupations other than farming. Type____________________________

12. Approximate number of years the farmer has participated in Federal Programs _____

13. Approximate % of gross income derived from Federal Programs last year ___%; Previous year ___%

14. Years in which farmer has participated in an organized Farm Record Analysis Program

	Last 12 Months on Present Farm	Previous Farm
15. Approximate days of hired labor utilized	_____	______
16. Approximate days of off-farm work done by the farmer	_____	______

Type of work done ________________________

17. Approximate days of off-farm work done by the farmer's wife _____ ______

Type of work done ________________________

18. Approximate % of purchases for which the farmer uses credit to obtain: Machin.___%, Livestock ___%, Feed, Seed & Fertilizer ___%, When buying Land ___%

19. Approximate total assets $____; total liabilities $_____; Net Worth$____

20. Highest Grade completed by farmer: (circle) 1 2 3 4 5 6 7 8 9 10 11 12
Participated in the Veteran's Training Program: Yes__ No__ No. of months _____
Other schooling (specify) ______________________No. of months______
Years of participation in Vocational Agriculture Young Farmer or Adult Classes _______ Approximate number of classes attended each year ___

21. Highest Grade completed by Farmer's wife: (circle) 1 2 3 4 5 6 7 8 9 10 11 12
Other schooling (specify) ______________________No. of months
Approximate number of Vo-Ag classes attended with husband __________

APPENDIX C - continued

22. Educational plans for family: Indicate the number (1) that have attended or are presently enrolled, and (2) for which you have plans for their attending.

	SONS		DAUGHTERS	
	Now or in Past	Future	Now or in Past	Future
No form of post-high school training	______	______	______	______
Vocational-Technical School	______	______	______	______
Community or Junior College	______	______	______	______
University or College	______	______	______	______

23. Do you feel the courses offered by the school in your community are adequate____, inadequate____for college bound students?

24. Do you feel the courses offered are adequate___, inadequate____for non-college bound students?

25. Do you feel the quality of education offered by this community is better ____, poorer____than that offered by the community from which you moved?

26. What courses or activities, if any, need more emphasis in rural high schools?______________________________

27. What courses or activities, if any, are receiving too much emphasis in rural high schools? ______________________

28. Does your community have a high school with an instructional program offering On-The-Job Training for students preparing for employment? (other than for farming)
Yes ___ No ___
If Yes: Do you feel such a program is beneficial and should be continued? Yes___ No___
Do you feel such a program should be expanded? Yes___ No___
What areas should be considered for expansion programs? ___
Do you feel such a program should be developed for adults seeking employment in business or industry? Yes___ No___
If No: Do you feel that such a program should be developed for high school children in the schools? Yes___ No___ In what areas?
Do you feel such a program should be started for adults seeking employment in business or industry? Yes___ No___

29. If the school serving you offers Agriculture in its curriculum:
Does it offer instruction and On-The-Job Training for related Agriculture occupations? Yes__ No__
Do you feel such a program should be included in rural community high schools? Yes__ No__

30. Is the farmer active in Local, County, State or National political activities other than as a voter? (being a candidate or actively working on someone's campaign) Yes__ No__
If yes:
The number of years he has held political office: ___Local__County
___State__National

APPENDIX C - continued

30. (cont.)

The number of years he has been a candidate, other than those above: ___Local ___County
___State ___National

The number of years he has actively worked on someone else's campaign: ___

31. Civic Activities in which the farmer has participated: (Indicate the number of years)

Member	Officer	
_____	_____	Conservation Club
_____	_____	Fair Board
_____	_____	Farm Bureau
_____	_____	Farmers Union
_____	_____	Grange
_____	_____	Junior Chamger of Commerce
_____	_____	Lions, Elks, Moose, Kiwanis, etc.
_____	_____	National Farmers Organization
_____	_____	Parent Teachers Association
_____	_____	School Board of Rural School District
_____	_____	School Board of Community School District
_____	_____	Senior Chamger of Commerce
_____	_____	Sportsman's Club
_____	_____	Other (specify)
_____	_____	

32. Religious Activities participation since starting farming (Number of Years)

_____ Church Board or Committee Member
_____ Church Choir
_____ Sunday School Teacher
_____ Other (specify)

33. I have spent _____ months in the military service.

34. (I do) (I do not) have a desire to move again within 5 years? If so, why? ____

APPENDIX D

QUESTIONNAIRE SENT TO FARMERS IDENTIFIED AS HAVING LEFT FARMING

Left or Retired
from Farming

Name ____________________
Address ____________________
County ____________________

1. Husband's Age ____ Husband's Nationality ____________________
   Husband was raised (1) on a ____acre farm, or (2) in a city of ____ people.
   The location of such residence was (city & state) ______________
   Type of farm on which raised: ____________________
2. Wife's Age ______ Wife's Nationality ____________________
   The wife was raised (1) on a ___acre farm, or (2) in a city of ____ people.
   Type of farm on which raised: ____________________
3. Ages of sons living at home ___, ___, ___, ___; away from home ___, ___, ___, ___.
4. Ages of daughters living at home ___, ___, ___, ___; away from home ___, ___, ___.
5. Present Status:
   ____Operate a business
   ____Employee of a business
   ____Retired
   ____Unemployed
   ___Union Member
   ___Non-union Member
   ___Part-time work

   Wife: ___Operates a business
   ___Employee of a business
   ___Union member
   ___Non-union member
   ___Part-time work
6. Information on farm from which the family moved:
   Lived there about ____ years and _____ months
   Status was: ___Owner
   ___Owner-Renter
   ___Renter
   ___Partner
   ___Hired Man
   ___Farm Manager
   Size of operation: ___total acres with _____tillable acres
   Type of farm: __General
   __Beef
   __Hog
   __Sheep
   __Dairy
   __Poultry
   __Grain
   __Timber
   __Other (specify) ______________
   Location of residence was (city & state) ____________________
7. The distance moved from previous location to present location was about ____miles.
8. Reasons for movement to present location were:
   _____Death of family member
   _____Better schools for family
   _____Greater income possibilities
   _____Inadequate source of credit
   _____Lack of help
   _____Lower financial burden
   _____Too small a farm
   _____Other (specify)
   ____
   ____Desire for lower labor requirement
   ____Family motivations
   ____Health
   ____Lack of facilities
   ____Less risks anticipated
   ____Retirement
   ____Unable to expand
   ____

APPENDIX D - continued

9. Number of farms on which farmer lived when engaged in farming ___

10. Approximate age when the husband started farming as a:

___Hired Man ___Renter ___Owner
___Partner ___Renter-Owner ___Farm Manager

11. Approximate years the husband was a:

___Hired Man ___Renter ___Owner
___Partner ___Renter-Owner ___Farm Manager
___Engaged in other occupations. Type ___________

12. Approximate number of years participated in Federal Programs when farming ______

13. Approximate % of gross income derived from Federal Programs the last year in farming ___%; the prior year about ___%

14. Years in which farmer participated in an organized Farm Record Analysis program: ___.

15. Approximate days of hired labor utilized last year of farming ____, previous Yr. ____.

16. Approximate days of off-farm work done the last year of farming, ____, previous Yr.___.
Is the present employment the same type of work? ___Yes ___no

17. Approximate days of off-farm work by wife the last year farming ____, previous yr. ____.
Type of work done ______________________________
Is she presently employed? ___Yes ___No. Is it the same type of work? ___Yes ___No

18. Approximate % of purchases for which the farm used credit when obtaining: Machinery ____%, Livestock ____%, Feed, Seed & Fertilizer ____%, When buying land ____%

19. Approximate total assets $____; total liabilities $____; Net Worth $____.

20. Highest Grade completed by husband: (circle) 1 2 3 4 5 6 7 8 9 10 11 12
Participated in the Veteran's Training Program: Yes__ No__ Number of Months __
Years of participation in Vocational Agriculture Young Farmer or Adult Classes ______
Approximate number of classes attended each year _____

21. Highest Grade completed by wife: (circle) 1 2 3 4 5 6 7 8 9 10 11 12
Other schooling (specify) ______________Number of Months ______
Approximate number of Vo-Ag. classes attended with husband ______

22. Educational plans for family: Indicate the number (1) that have attended or are presently enrolled, and (2) for which you have plans for their attending.

	SONS		DAUGHTERS	
	Now or in Past	Future	Now or in Past	Future
No form of post-high school training	______	______	______	______
Vocational-Tech. School	______	______	______	______
Community or Jr. College	______	______	______	______
University or College	______	______	______	______

APPENDIX D - continued

23. Do you feel the courses offered by the school in your community are adequate ___, inadequate ___, for college bound students?

24. Do you feel the courses offered are adequate ___, inadequate___, for non-college bound students?

25. Do you feel the quality of education offered by this community is better___, poorer ___, than that offered by the community from which you moved.

26. What courses or activities, if any, need more emphasis in rural high schools? ______________________________

27. What courses or activities, if any are receiving too much emphasis in rural high schools? ______________________________

28. Does your community have a high school with an instructional program offering On-The-Job Training for students preparing for employment? (other than for farming) Yes___ No___

If Yes: Do you feel such a program is beneficial and should be continued? Yes__ No__.
Do you feel such a program should be expanded? Yes__, No__.
What areas should be considered for expansion programs?
____
Do you feel such a program should be developed for adults seeking employment in business or industry? Yes__ No__

If No: Do you feel that such a program should be developed for high school children in the schools? Yes__, No__. In what areas? ______________________________
Do you feel such a program should be started for adults seeking employment in business or industry? Yes__, No__

29. If the school serving you offers Agriculture in its curriculum:
Does it offer instruction and On-The-Job Training for related Agriculture occupations? Yes__, No__
Do you feel such a program should be included in rural community high schools? Yes__ No__
If Yes, in what specific areas of instruction? ______________

30. Is the farmer active in Local, County, State or National political activities other than as a voter? (being a candidate or actively working on someone's campaign) Yes__ No__
If yes:
The number of years he has held political office: __Local __County
__State __National
The number of years he has been a candidate, other than those above: __Local __County
__State __National
The number of years he has actively worked on someone else's campaign: ____

31. Civic Activities in which the farmer has participated: (Indicate the number of years)

Member	Officer	
_____	_____	Conservation Club
_____	_____	Fair Board
_____	_____	Farm Bureau
_____	_____	Farmers Union

APPENDIX D - continued

31.(cont.)

Member	Officer	
		Grange
_____	_____	Junior Chamber of Commerce
_____	_____	Lions, Elks, Moose, Kiwanis,etc.
_____	_____	National Farmers Organization
_____	_____	Parent Teachers Association
_____	_____	School Board of Rural School District
_____	_____	School Board of Community School District
_____	_____	Senior Chamber of Commerce
_____	_____	Sportsman's Club
_____	_____	Other (specify)
_____	_____	
_____	_____	

32. Religious Activities participation since starting farming (Number of Years)

_____ Church Board or Committee Member
_____ Church Choir
_____ Sunday School Teacher
_____ Other (specify)
_____
_____

33. I have spent ____months in the military service

34. (I do) (I do not) have a desire to move again within 5 years? If so, why? ____

APPENDIX E

QUESTIONNAIRE SENT TO FARMERS IDENTIFIED AS NOT MOVING IN 6 YEARS

Farmers Not Moving
in Six Years

Name ______________________
Address ____________________
County _____________________

1. Farmer's Age ___ Farmer's Nationality ____________________
The farmer was raised (1) on a ___acre farm, or (2) in a city of ___ people.
The location of such residence was (city & state) __________
Type of farm on which raised: ____________________
2. Wife's Age ___ Wife's Nationality ____________________
The wife was raised (1) on a ___acre farm, or (2) in a city of ___people.
The location of such residence was (city & state) __________
Type of farm on which raised: ____________________
3. Ages of sons living at home ___, ___, ___; away from home ___, ___.
4. Ages of daughters living at home ___, ___, ___; away from home ___.
5. Present farm information:
Have lived on this farm about ___years and ___months
The farmer's current situation can be classed as the following:
___Owner ___Renter ___Hired Man
___Owner-Renter ___Partner ___Farm Manager
Size of operation: ___total acres with ___tillable acres
Type of farm: __General __Hog __Dairy __Grain __Other (specify)
__Beef __Sheep __Poultry __Timber __________
6. Previous farm information: (If not farming, give type of employment ______________)
Lived there about ___years and ___months
Status was: ___Owner ___Renter ___Hired Man
___Owner-Renter ___Partner ___Farm Manager
Size of operation: ___total acres with ___tillable acres
Type of farm: __General __Hog __Dairy __Grain __Other (specify)
__Beef __Sheep __Poultry __Timber __________
Location of residence was (city & state) ____________________
7. The distance moved from previous location to present farm was about ___miles.
8. Reasons for movement to this particular farm were:
____ Better facilities, overall
____ Less risks anticipated
____ Lower financial burden
____ Lower labor requirement
____ Opportunity for farming for myself
____ Move to smaller farm
____ Facilities better suited to specialization in major enterprise
____ Better school for family
____ Other (specify)
____
____ Higher anticipated income
____ Location better suited to markets, industry, etc.
____ Move to larger farm
____ Opportunity for farming in partnership
____ Soil type better suited to area of specialization
____ Took over home farm or parent's farm
____ Availability of credit

APPENDIX E - (cont.)

9. Number of farms on which farmer has lived since entering farming___

10. Approximate age when the farmer started farming as a:
____Hired Man ____Renter ____Owner
____Partner ____Renter-Owner ____Farm Manager

11. Approximate years the farmer has been a:
____Hired Man ____Renter ____Owner
____Partner ____Renter-Owner ____Farm Manager
____Occupations other than farming. Type____________________

12. Approximate number of years the farmer has participated in Federal Programs _____

13. Approximate % of gross income derived from Federal Programs last year ____%; Previous year ___%

14. Years in which farmer has participated in an organized Farm Record Analysis Program _____

	Last Year	Previous Yr.
15. Approximate days of hired labor utilized	_____	_____
16. Approximate days of off-farm work done by the farmer. Type of work done__________________	_____	_____
17. Approximate days of off-farm work done by the farmer's wife	_____	_____

Type of work done__________________________

18. Approximate % of purchases for which the farmer uses credit to obtain: Machin. ___%, Livestock___%, Feed, Seed & Fertilizer___%, When buying land___%.

19. Approximate total assets $___; total liabilities $___; Net Worth $___

20. Highest Grade completed by farmer: (circle) 1 2 3 4 5 6 7 8 9 10 11 12
Participated in the Veteran's Training Program: Yes__, No __, Number of months __
Other schooling (specify)________________Number of months____
Years of participation in Vocational Agriculture Young Farmer or Adult Classes ______
Approximate number of classes attended each year _____

21. Highest Grade completed by Farmer's wife (circle) 1 2 3 4 5 6 7 8 9 10 11 12
Other schooling (specify) ____________________Number of months____
Approximate number of Vo-Ag. classes attended with husband_______

22. Educational plans for family: Indicate the number (1) that have attended or are presently enrolled, and (2) for which you have plans for their attending.

	SONS		DAUGHTERS	
	Now or in Past	Future	Now or in Past	Future
No form of post-high school training	_____	_____	_____	_____
Vocational-Tech. School	_____	_____	_____	_____
Community or Jr. College	_____	_____	_____	_____
University or College	_____	_____	_____	_____

23. Do you feel the courses offered by the school in your community are adequate___, inadequate____for college bound students?

24. Do you feel the courses offered are adequate___, inadequate___, for non-college bound students?

APPENDIX E - continued

25. Do you feel the quality of education offered by this community is better___, poorer___ than that offered by the community from which you moved.

26. What courses or activities, if any, need more emphasis in rural high schools? ____

27. What courses or activities, if any, are receiving too much emphasis in rural high schools? ________________________________

28. Does your community have a high school with an instructional program offering On-The-Job Training for students preparing for employment? (other than for farming) Yes__ No__

If Yes: Do you feel such a program is beneficial and should be continued? Yes__ No__

Do you feel such a program should be expanded? Yes__ No__

What areas should be considered for expansion programs?

____

Do you feel such a program should be developed for adults seeking employment in business or industry? Yes__ No__

If No: Do you feel that such a program should be developed for high school children in the schools? Yes__ No__. In what areas? ________________________________

Do you feel such a program should be started for adults seeking employment in business or industry? Yes__ No__

29. If the school serving you offers Agriculture in its curriculum:

Does it offer instruction and On-The-Job Training for related Agriculture Occupations? Yes__ No__

Do you feel such a program should be included in rural community high schools? Yes__ No__

30. Is the farmer active in Local, County, State or National political activities other than as a voter? (being a candidate or actively working on someone's campaign) Yes__ No__

If yes:

The number of years he has held political office: ___Local__County
___State__National

The number of years he has been a candidate, other than those above:
___Local__County
___State__National

The number of years he has actively worked on someone else's campaign: _____

31. Civic Activities in which the farmer has participated: (Indicate the number of yrs.)

Member	Officer	
_____	_____	Conservation Club
_____	_____	Fair Board
_____	_____	Farm Bureau
_____	_____	Farmers Union
_____	_____	Grange
_____	_____	Junior Chamber of Commerce
_____	_____	Lions, Elks, Moose, Kiwanis, etc.
_____	_____	National Farmers Organization
_____	_____	Parent Teachers Association

APPENDIX E - continued

31. (cont.)

Member	Officer	
____	____	School Board of Rural School District
____	____	School Board of Community School District
____	____	Senior Chamber of Commerce
____	____	Sportsman's Club
____	____	Other (specify)
____	____	

32. Religious Activities participation since starting farming (Number of Years)

____ Church Board or Committee Member
____ Church Choir
____ Sunday School Teacher
____ Other (specify)
____

33. I have spent ____ months in the military service

34. (I do) (I do not) have a desire to move again within 5 years? If so, why?________________________________

APPENDIX F

CATEGORICAL RESPONSES RECEIVED FROM FARMERS IN THE VARIOUS COOPERATING SCHOOL DISTRICTS

			Type of Questionnaire		
	School	Number Identified	Entered or Changed Status	Left or Retired	No Move in 6 Years
1.	Adams	11	4		7
2.	Alden	15	8	3	4
3.	Balaton	7	3	2	2
4.	Byron	9	6		3
5.	Delevan	5	2	1	2
6.	East Chain	10	3	1	6
7.	Emmons	9	5	1	3
8.	Fulda	16	6	6	4
9.	Harmony	19	11	2	6
10.	Lamberton	20	8	4	8
11.	LeRoy	14	5	5	4
12.	Lewiston	7	1		6
13.	Lynd	6	2	1	3
14.	Jeffers	10	4	1	5
15.	Lakefield	10	4	3	3
16.	Madelia	14	5	3	6
17.	Plainview	7	2	2	3
18.	Preston	10	8		2
19.	Round Lake	11	4	2	5
20.	Sherburn	4			4
21.	Sleepy Eye	17	8	2	7
22.	Wabasha	3			3
23.	Wabasso	15	3	4	8
24.	Waldorf-Pemberton	17	5	3	9
25.	Walnut Grove	15	7		8
26.	Wells	10	5	2	3
27.	Winnebago	5	2		3
	TOTAL	296	121	48	127

APPENDIX G

COORDINATION OF THE THREE QUESTIONNAIRES ILLUSTRATING AREAS OF COMMONALITY OF INFORMATION RETRIEVED FOR COMPARISON PURPOSES

	Type of Questionnaire		
Information on Questionnaires	Entered or Changed Status	Left or Retired	No Move in 6 Years
1. Farmer's Age	X	X	X
2. Farmer's Nationality	X	X	X
3. The farmer was raised on a ____ acre farm or in a city of ____ people.	X	X	X
4. Location of residence identified in question #3.	X	X	X
5. Type of farm on which raised	X	X	X
6. Wife's Age	X	X	X
7. Wife's Nationality	X	X	X
8. The wife was raised on a ____ acre farm or in a city of ____ people.	X	X	X
9. Location of residence identified in question #8.	X	X	X
10. Type of farm on which the wife was raised.	X	X	X
11. Ages of sons living at home	X	X	X
12. Ages of sons living away from home	X	X	X
13. Ages of daughters living at home	X	X	X
14. Ages of daughters living away from home	X	X	X
15. Duration lived on present farm	X		X
16. Present employment status; farmer		X	
17. Present employment status; wife		X	
18. Farmer's present farming status	X		X
19. Acres presently under operation	X		X
20. Type of farm under operation	X		X
21. Duration lived on previous farm	X	X	X
22. Status on previous farm	X	X	X
23. Acres previously under operation	X	X	X
24. Type of previous farm operation	X	X	X

APPENDIX G - continued

	Type of Questionnaire		
Information on Questionnaire	Entered or Changed Status	Left of Retired	No Move in 6 Years
25. Location of previous residence	X	X	X
26. Distance moved from previous to present location	X	X	X
27. Reasons for movement to present farm	X		X
28. Reasons for leaving farming		X	
29. Number of farms on which farmer has lived since entering farming	X		X
30. Number of farms on which lived while engaged in farming		X	
31. Approximate age when starting farming	X	X	X
32. Approximate years engaged as a Hired Man, Partner, Renter, Renter-owner, Owner, Farm Manager & Other Occupations	X	X	X
33. Approximate years farmer participaged in Federal Programs	X	X	X
34. Approximate % of gross income from Federal Programs last year and the previous year	X		X
35. Approximate % of gross income from Federal Programs the last year in farming and the prior year.		X	
36. Years of participation in Organized Record Analysis Program	X	X	X
37. Approximate days of hired labor utilized the last 12 months of present farm & previous farm operation	X		
38. Approximate days of hired labor utilized the last year of farming and the previous year		X	
39. Approximate days of hired labor utilized last year and the previous year			X
40. Approximate days of off-farm work, and type, done by the farmer the last 12 months on present & previous farm	X		

APPENDIX G - continued

Information on Questionnaire	Entered or Changed Status	Left Retired	No Move in 6 Years
41. Approximate days of off-farm work, and type, done by the farmer the last 12 months on present & previous farm	X		
42. Approximate days of off-farm work done last year & the previous year			X
43. Approximate days of off-farm work by wife, and type, the last 12 months on present and previous farm	X		
44. Approximate days of off-farm work by wife, and type, the last year and previous year of farming; whether she's presently employed in the same type of work		X	
45. Approximate days of off-farm work by wife, and type, last year and the previous year			X
46. Approximate % of purchases for which credit was used in obtaining machinery, livestock, feed, seed & fertilizer and land	X	X	X
47. Approximate total assets	X	X	X
48. Approximate total liabilities	X	X	X
49. Approximate net worth	X	X	X
50. Years of education, husband	X	X	X
51. Participation in Veteran's Training program	X	X	X
52. Participation in other schooling	X	X	X
53. Participation in Vocational Agriculture Young Farmer or Adult Classes	X	X	X
54. Years of education, wife	X	X	X
55. Participation in other schooling	X	X	X
56. Young Farmer & Adult Classes attended with husband	X	X	X
57. Educational plans for children	X	X	X

APPENDIX G - continued

Information on Questionnaire	Type of Questionnaire Entered or Changed Status	Left or Retired	No Move in 6 Years
58. Are courses offered by the community school adequate for college bound students?	X	X	X
59. Are courses offered by the community school adequate for non-college bound students?	X	X	X
60. Is the quality of education in the present community better than the previous community?	X	X	X
61. Courses or activities needing more emphasis in rural high schools	X	X	X
62. Courses or activities receiving too much emphasis in rural high schools	X	X	X
63. Does community high school offer On-The-Job Training, other than for farming?	X	X	X
64. Attitudes toward a program of On-The-Job Training	X	X	X
65. Characteristics of agriculture program in community high schools	X	X	X
66. Activity in politics	X	X	X
67. Participation in civic activities	X	X	X
68. Participation in religious	X	X	X
69. Months of military service	X	X	X
70. Desire to move in the next 5 years, and the reasons	X	X	X

APPENDIX H

COURSES OR ACTIVITIES IN NEED OF MORE EMPHASIS IN RURAL HIGH SCHOOLS WHICH RECEIVED MORE THAN ONE RESPONSE, BY GROUPS

		Number of Responses		
Course or Activity	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Adult Education	3	3		
Agriculture and Agricultural Shop	20	9	2	9
Basic or General Courses	3	3		
Business	4	3		1
College Preparation	3	2		1
Economics	2	2		
Fine Arts	4	1		3
Home Economics	2			2
Language	15	6	2	7
Mathematics	16	8	5	3
Money Management	2	1	1	
Music	3	1		2
Prayer - Religion Education	2		1	1
Social Studies	4	2	1	1
Sex Education	2	1	1	
Science	17	7	3	7
Speech and English	5	3	1	1
Vocational-Technical (General)	27	6	6	15
Vocational-Specifics (i.e. Building, Consumer Training, Electronics, Mechanics, Skill Trades, Printing, Power Mechanics, Welding)	19	8	1	10

APPENDIX I

COURSES OR ACTIVITIES WITH MORE THAN ONE RESPONSE IDENTIFIED AS RECEIVING TOO MUCH EMPHASIS IN RURAL HIGH SCHOOLS, BY GROUPS

Course or Activity	Total Group	Number of Responses Incoming Farmers	Ougoing Farmers	Stable Farmers
Band	3	1	1	1
Business	2	1	1	
College Preparation	3	2		1
Dancing	2		2	
English	5	2	2	1
Extra-curricular activities	6	2	2	2
Music	2			2
Sex Education	4	1	1	2
Science	2	1		1
Social Studies	6	3	2	1
Sports, including Physical Education	50	6	7	37

APPENDIX J

ON-THE-JOB TRAINING SUGGESTIONS FOR INCLUSION OR EXPANSION PROGRAMS IN HIGH SCHOOLS, BY GROUPS

	Number of Responses			
Instructional Program	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
Business and Commercial	10	6	2	2
Secretarial and Office Work	5			5
Trades and Industry (no specifics)	13	5	2	6
Vocational Training (no specifics)	4		1	3
Specificis:	17			
Carpentry; construction		3		1
Electronics		5		
Mechanics		1		1
Metal Work				1
Power Mechanics				1
Retailing				1
Servicing Equipment				1
Shop		1		
Small Appliance Repair			1	
Comment: "Schools should be for education only, not for job training"				2

APPENDIX K

HIGH SCHOOL ON-THE-JOB TRAINING SUGGESTIONS FOR RELATED AGRICULTURAL OCCUPATIONS, BY GROUPS

	Number of Responses			
Type of Training	Total Group	Incoming Farmers	Outgoing Farmers	Stable Farmers
1. Agri-business	5		1	4
2. Animal Health, Veterinary	2	2		
3. Animal Nutrition	2	2		
4. Animal Science	4	3		1
5. Agronomy	2	1	1	
6. Business-Commercial	4	1		3
7. Carpentry	3			3
8. Chemicals	2	2		
9. Dairying	2			2
10. Farm management and Record keeping	23	10	3	10
11. Farm Machinery	11	7		4
12. Farming	15	4	2	9
13. Feed, Seed Handling & Elevator work	4			4
14. Fertilizers	10	3	2	5
15. Mechanics	6	3	1	2
16. Plumbing	2	1		1
17. Soils & Soil Conservation	2	1		1
18. Tractor Repair	3	2		1
Comment: "School should decide or to go along"	3		1	2